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HORA PHILOLOGICA,
OR,
CONJECTURES ON THE STRUCTURE
OF THE
GREEK LANGUAGE.

BY WILLIAM SEWELL, M. A.

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NOTE TO THE READER.

IN the only place where a writer is allowed to speak of himself, I may, perhaps, be permitted to apologize for any errors in the following little Essay, first, by candidly pleading very great ignorance of the critical labours of others; and secondly, by explaining that the observations themselves were made solely for my own amusement, during a late tour on the continent, when I could obtain no access to books; and possessed no other means of ascertaining their accuracy, but conversation with a most valued and gifted friend *, to whose talents and researches on similar subjects I may attribute either directly, or indirectly, anything not altogether valueless in the conjectures themselves.

As I am not likely to possess much leisure for prosecuting philological inquiries, and have found even the present sketch, with all its manifold imperfections, useful on more than one occasion* in encouraging a fondness for critical studies, I have not scrupled, though with great diffidence of its value, to offer it to any student who may be inclined to exercise his own mind in refuting or confirming the hypotheses of others.

* William Crichton, esq. of Merton college, Oxford.

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TO THE

SOCIETY OF EXETER COLLEGE,

THIS LITTLE ESSAY

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HORA PHILOLOGICA.

USE OF LANGUAGE.

AMONG the many principles of action, which Nature has implanted in the Human mind, there are two which seem principally to have led us to the formation and employment of Language; our animal wants, and the desire of Sympathy. If we could supply the former without the assistance of society, or gratify the latter without communicating our ideas, in all probability language would have never existed. In our present constitution, however, we find it perpetually necessary to act upon the minds of the beings which surround us, in order to bring them into those states in which they will be inclined to satisfy our wants, or harmonize with our own feelings. And man, thus surrounded by animated creatures, is not unlike a musician playing on an enormous organ filled with millions of chords and pipes, and moving on the most delicate springs, which run into and act upon each other in complications impossible to follow; and produce either harmony or discord in proportion to the skill of the performer.

Now as every impression on the mind must be made through one of the senses, we must employ as the medium of our communication with it, either the touch, the taste, the smell, the eye, or the ear. We employ the first when we whip a child to keep him from mischief; the second, when we bribe him with sugar-plums; the third, when we apply scents to the nose of a fainting person; the fourth, in exhibiting a picture; and the fifth, in the composition of music. And in all these cases the mind is immediately brought into the state which we wish to produce.

But as our object is to possess an absolute control over its habits, and the power of bringing it, as we wish, into every possible state, of which it is susceptible; it is evident that both the organs which we affect, and the instruments by which we act on them, must severally possess the two following qualities:

I. They must be as much as possible within our own command.

II. They should be capable, the one of conveying, and the other of receiving, as great a variety of distinct impressions, as there are distinct ideas to be produced in the mind.

To possess a perfect command of musical combinations we must have an instrument provided with the requisite number of keys, and those keys completely within our reach.

With respect to the first qualification, it is obvious that the ear is the organ to which we have most readily access: we can reach it with greater rapidity; from a greater distance than any other; under circumstances when no other can be approached; and with the least probability of finding its avenues blocked up. The slightest partition will prevent our acting upon the touch, the taste, the smell, or even the eye; and any one of these senses we can easily prevent from receiving impressions, when disinclined to admit them. The ear is however always open, and difficult to be closed. And the instrument, by which we are enabled to act on it, is likewise more in our power than any other of our organs; since it is the hardest of all to confine, and nearly the last of which we are deprived by dissolution.

With regard to the second qualification, supposing that we were able to produce none but immediate impressions on the mind; i. e. none through the ear but sounds, none through the eye but colour and figure, and none through the touch but heat and cold, or hardness and softness, it is evident that the fittest medium for our mutual communication would be the sense which took the widest range, and admitted the greatest variety of ideas. This would of course be the eye; and in such a language actual substances, or pictures, would

constitute our words ; as travellers converse with savages, and the Mexicans transmitted their news. But such a language would be in the first place an extremely clumsy machine. Portable mountains, and rivers, and trees, are not procurable at a moment's notice, when we wish to set them before the eyes of our audience ; and even pen, ink, and paper, to sketch them, are frequently out of our reach. 2. It would be very deficient, since all the art of man could not convey through the eye the ideas of sweetness, bitterness, grave sounds, coldness or warmth, or, in short, any other ideas than those which we perceive through the eye. And thus the other four senses would be left without any representative. 3. It would fail in that essential point, the power of conveying abstract ideas, since to the eye colour could never be exhibited without extension, nor extension without figure ; nor a quality of the mind without an action of the body ; nor motion without a number of accidental circumstances ; so that the process of distinguishing the idea we wished to call up, amidst this group of extraneous attributes, would be one of considerable time, and no less difficulty^a. Fortunately from this awkward resource Nature herself has rescued us by the law of asso-

^a See Appendix (A).

ciation ; that simple law, by which when the mind has passed several times consecutively from one state to another, from A to B, it acquires a tendency to repeat the same order of ideas whenever the first link occurs ; and to slide into A whenever it is brought into B. By this law then we are enabled to select one single sense, in order to convey a number of impressions to the mind ; each of which impressions, having previously been associated with some other idea, will call it up again in future, and stand to it in the relation of a sign, or indicator, as a buoy to an anchor, a rope to a bucket in a well, or a bank note to the value which it represents. And taking this last kind of sign as an illustration, we shall be able to ascertain by it what are the requisite qualifications of signs in general. One great advantage then of paper money as a medium of exchange is its infinite divisibility, by which it is enabled : 1. to represent every possible denomination of value ; 2. to represent them distinctly and precisely ; and 3. to effect this by a very simple and easy process ; viz. the repetition and combination of a very few primary elements. Another great advantage is the rapidity with which it can be circulated ; and the certainty and simplicity with which our calculations may be carried on in it, without a constant reference to positive value incorporated in articles of

commerce. Another advantage is its perfect intrinsic valuelessness; by which, if properly managed, it would be preserved from all fluctuations; and prevent any confusion from arising between the sign of value and the thing signified.

Now precisely analogous qualifications are requisite in those ideas or impressions, which we employ as signs to the mind, or representatives of other ideas.

I. They should be sufficiently numerous to supply a different sign for every different idea or group of ideas.

II. Each of these signs should be distinct from the other, in order to call up distinct ideas.

III. As their variety must be very great from the nature of their office, and yet it is difficult for the memory to retain any considerable number, they must be compounded of a few simple elements, whose signification may easily be embraced and retained in the mind.

IV. They should be capable of being employed with quickness and facility, to satisfy the impatience of a substance which has to express the most rapid movements by a slow vehicle.

V. They should be as abstract as possible, to prevent any confusion, and to enable us to employ them with precision and distinctness.

It is evident that in comparing the means

which the eye and the ear respectively present of conveying to the mind a series of signs thus constituted, the ear possesses a great superiority over the eye in all cases where we can reach by sounds the object which we wish to affect. Where it is removed to a distance we address ourselves to the eye; and in both cases we endeavour to frame signs endowed with all the requisite excellences. Hence in speaking we are glad to employ a few primitive sounds, which are very rapidly pronounced, run easily into each other, present but one single idea to the mind, and represent an infinite variety of ideas by combinations of the same simple principles. And in writing, the same.—Each letter being as simple as possible, as quickly written, as unmeaning in itself, and as rich in the multiplicity of its uses, as it is numerous in the possibilities of its combinations.

Still, notwithstanding the judgment with which sounds have been selected as the medium of our mutual communications in society, it remains to be inquired, how we were led to select and to frame them. It is quite obvious that the first man who employed language had never contemplated the subject in this light, or weighed all the relative merits and demerits of the different senses. It is equally difficult to conceive how any two or more persons could have existed without some means of mutual

communication ; or how, without some means already established, they could arbitrarily agree to attribute a certain number of ideas respectively to certain insignificant signs. It is also a maxim of sound philosophy, that where a phenomenon may be explained by facts which are clear and ascertained, we are not to wander for solutions into the mists of hypothesis and conjecture : and lastly, there is a strong probability that Nature, who has so elaborately provided for all the other wants of our helplessness, has not left us unassisted in this most essential particular ; but having made language necessary to our happiness, led us also instinctively to its formation. And if we can once discover laws of mind adequate to accomplish this purpose, we may consider the problem as solved, and neither have recourse to revelation where revelation is not necessary, nor to the arbitrary caprice of man where such a principle could not possibly operate.

We find, then, that Nature has placed in our throats a very curious and complicated machine, by which, with the assistance of the organs of the mouth, we are enabled to produce a number of sounds, and to modify, arrange, and combine them as we wish : we feel also that there is a strong sympathy, or, perhaps to speak more accurately, a close connection between this instrument and other nerves

and muscles communicating with the brain ; so that an affection of one of these nerves is immediately followed by an affection of the voice ; and this not indiscriminately, but with all the distinctions of feeling accurately marked. Joy never is expressed in slow and low tones, or grief in rapid and lively airs. Particular notes are appropriated to particular passions. The very rhythm of sounds indicates the state of the mind ; and their mere inflexions and cadences will not only express, but communicate the several emotions which produced them. The action in short is reciprocal. Sorrow in the mind of one man produces a flood of tears, and that flood of tears instinctively produces sorrow in the mind of another. Triumph is expressed by a loud cry of exultation ; and this same sound produces in other minds the same state from which it originated itself. Beyond this fact we cannot perhaps at present advance, but we here obtain one element of language instinctively taught us without our choice ; without even our consciousness of the mode by which to employ it. We have certain simple sounds, and modifications of sounds, to express and to communicate certain passions of the mind.

II. The love of imitation, which is perhaps resolvable into three principles : the force of sympathy, the tendency of the mind to recur

into a previously existing state, and in some cases the pleasure of exercising power, supplies us at once with another class of words, which represent sounds by sounds.

Onomatopœias abound in all tongues, and are formed every day by the most vulgar and ignorant minds.

III. As some sounds are pleasing and others displeasing, it will be very natural, by the law of association, to represent all agreeable objects by the first class of sounds, and disagreeable objects by the second; and the influence of this analogy is perceptible in all languages.

IV. Not only will individual ideas be represented in this manner, but the mode of succession in which they occur, the quickness, or slowness, or abruptness of their transition, will be likewise expressed by quick, or slow, or abrupt sounds. The rhythm in which the ideas are conveyed to the mind, will exactly tally with the rhythm of the sounds by which they are indicated. It is quite as unnatural to dance out of time as to be sorrowful in trochaics or joyful in spondees.

V. There is a great sympathy between the different senses; and the man who compared the colour of scarlet to the note of a trumpet, from finding that the impression on his mind was in some degree the same, would naturally

express the one by the other. Every one has heard of tastes being compared to odours, and feelings to sounds. Thus we speak of harsh outlines and harsh tones, of clear light and clear notes, of softness as applied to the touch, the ear, and the eye. And the universal mixture of metaphor which pervades all languages when speaking of the senses, is a sufficient illustration of the fact.

VI. Accidental and natural associations will frequently have connected sounds with ideas which naturally are totally distinct from them^b.

VII. The slightest analogies between objects will be seized, and give rise to their classification under one common sound.

VIII. As we employ in shorthand writing, part of a letter to indicate a whole word, so in the wish to express our thoughts with rapidity equal to their succession, we shall employ a single sound to express a whole group of ideas which we have observed in connection with it: the rustling of a tree to represent a tree, a sound like a roar to indicate the sea.

Such are some of the chief principles which would guide man in the adoption of particular sounds to represent ideas and objects. None of them arbitrary, none depending on our own choice. None even, in which we are ac-

^b See Appendix (B).

quainted with the mode of operation. The meanest rustic acts upon them every day in the communication of his feelings: and if another world were peopled from a single pair constituted and organized as man, its language, with very few exceptions arising from accidental associations, would be the same as the one which we employ.

Besides, however, the use and advantage of language and the means by which we arrived at it, there is another inquiry concerning the nature of those combinations of sound, whether expressed by the voice or represented by written lines, which we denominate words. And difficulties have been thrown in the way of this inquiry by the very nature of language. In learning to speak we do not acquire each word separately, attaching to each its peculiar signification. But we run off whole sentences by rote, in which the only terms invested with distinct ideas are objects of sight, and of the other senses, and all the abstract terms, with the intermediate links, and little particles which tie them together, convey nothing but a vague and scarcely perceptible notion of something very undefined, which we do not take the trouble to examine. The sounds run so easily and quickly into each other both from habit and their own natures, that we never stop to break their links, and examine each of

them apart from the rest. And hence three errors have been fostered in many grammatical speculations.

I. The opinion that one word influences or governs another, because they are generally connected together, just as the conjunction of antecedents and consequents in the physical world has given rise to the vulgar belief in some mysterious energy communicating between them. And the real source of both these errors may perhaps be traced to the rapid action of the mind, which actually blends and runs together states which have frequently appeared in succession.

II. The assertion that some words have no signification except when combined with others.

III. The belief that some have no original signification whatever, because none has been attached to them by us.

Whereas if we look to the earliest languages and those least perfect in the present day, we find them made up of words entirely distinct from each other, each with a separate meaning, and unconnected by any particles. The more also we analyze by etymology our own more complicated tongues, the more reason we find to break them up into their separate elements. And in fact, since every word was first employed as a sign of some state of mind, and those states of mind follow one another in re-

gular but distinct succession, their signs must be equally distinct in their original use and application. And to say that a sign was employed without anything for it to signify, that words were framed to represent things which did not exist, which is to say that there are words without any meaning properly attached to them, is as great an absurdity as to conceive the institution of a paper currency without value attached to it, or of a telegraphic communication, where neither party understood the movements.

Three principles then must necessarily be laid down.

I. That every sound or separate combination of sounds was originally invested with a distinct, appropriate, and self-existing meaning.

II. Upon the same grounds, that the slightest variety of inflexion, where it cannot be traced to a confused pronunciation, indicates a difference of meaning.

III. That, every sound having originally but one meaning, wherever it appears to comprehend many, some analogy must have existed between them.

In dividing, however, words into their several classes according to the nature of the ideas which they represent, much confusion has generally been produced, in some instances by rejecting altogether the metaphysics of

language, or to avoid a much-abused and ill-understood term : an investigation of the human mind as connected with the employment of words; and in other cases by confining the inquiry to the material and external world; and bringing a cloud over the subject as thick as *Ægyptian* darkness, by playing with the words essence, substance, attribute, accident, property, and all those logical terms, to which no definite meaning has ever been attached; and which are employed about things very far removed from our cognizance; and whose very existence is disputable. Instead therefore of classifying words according to their accidental form, or local position, or the imaginary attributes of matter; and of consequently throwing into one confused and neglected heap, a vast number denominated particles, which from our own ignorance are unsusceptible of any other arrangement, it will be advisable to reduce them under as few heads as possible, according to the different states of mind, which they serve to represent.

And to do this we may propose the following axioms:

I°. That every simple idea, perception, sensation, or notion, or whatever other term we may choose to employ, is nothing but the mind

° See Appendix (C).

itself in a particular state; just as a piece of wax moulded now into a cube, now into a triangle, and now into a globe, is still the same wax under a different shape. Of course the analogy does not extend to imply the materialism of the mind.

II. That the mind can be but in one state, or be conscious of one simple idea at a time.

III. That the succession of these states is regulated first by the succession of external impressions, and next by the law of association.

IV. That the mind has the power of cutting the chain wherever it chooses; of detaching from it one link, or two, or three, or as many as it likes; into which power we may resolve the faculty of abstraction.

V. That it frequently employs a single sound, or one state of mind to indicate and stand for any group which it has thus detached.

VI. That every group thus detached becomes in language a substantive, and every member when considered as a part of it, becomes an adjective, as a tall fair man, a green spreading beautiful tree, a clear deep silent river; where each of the groups constitutes but one substantive composed of several ideas, which the mind runs through connectedly, till it comes to a termination; and then breaks them off from the ideas which are ready to follow—a principle which perhaps may be illustrated by the

fact, that when we convert an adjective into a substantive, or a concrete noun into an abstract, we generally denote the change of signification by some alteration at the end of the word, not at the beginning.

VII. That whenever any one adjective member of a group is peculiarly striking and impressive, it fixes the mind upon its contemplation, and thus becomes a substantive still connected with the former elements of the compound series. Thus, we say a man of justice, instead of a just man; a tree of verdure, instead of a green tree; a vision of beauty, instead of a beautiful vision.—And this conversion of an adjective idea into a substantive is instinctive; and takes place upon the same principle as one part of an object, or one quality amidst a number, when contemplated through the senses, arrests the attention of the mind, and makes us pause and dwell on it without passing on to any other. And it is thus that the use of abstract nouns instead of concrete, is not only indicative, but productive of greater strength and energy of thought.

VIII. That visible objects will supply us on all occasions with the most easy and natural source for analogous descriptions. The act of defending will be indicated by the position of the person before or over the object protected.—equality will be denoted by the supposed

situation of the parties face to face—inferiority by the relation of lowness; a state of the mind by a state of the body, as terror by shuddering, fear by paleness, cowardice by the act of running away—so also the abstract feelings and operations of the mind will be expressed by the visible and tangible external objects which tend to produce similar sensations. The state of the mind, when uncertain how to act, will be spoken of as wavering, suspended, balanced—the terms inclined, urged on, propelled, conception, imagination, in fact the whole vocabulary, which we employ when speaking of mental operations, is drawn from matter and from sight; and incalculable mischiefs have arisen from this source both to morals and philosophy. How we are led to the employment of these metaphors is obvious. --The range of the eye, and the multiplicity of the ideas conveyed by it, readily connect visible objects even with the most abstract notions. By far the greater part of these notions are excited solely through the medium of sight. The states of mind produced by the physical operations of our senses, are in very many instances similar, if not the same, with our moral and intellectual sensations.—To which we may add the clearness and definiteness of such ideas themselves: and the facility of removing any obscurity by the assistance of gesture and action.

IX. That the mode in which words have passed in every language from one simple idea to the representation of a number, and back again to the simple or abstract idea, is the following:—The word in its first employment expressed one single quality, which was taken to denote an aggregate of other qualities combined in an individual object. But by the law of association, whenever a similar object occurred, the word would recur likewise. But the similarity not amounting to identity, the feature of difference would instinctively be struck off from the group which the word denoted. And thus with every repetition of a similar object some new feature would be detracted, till, if the word was in common use, it would come to signify nothing, but those few and remote resemblances in which every single instance concurred. Hence it is that the commonest terms are those to which it is most difficult to affix a precise and definite meaning, since such a definition can only be attained by a very accurate and extensive comparison. While at the same time it is in these cases that we are least likely to demand a definition, since the frequency of the repetition, and the consequent absence of all hesitation, deludes us into a notion, that the rapidity of sound is the result of certain knowledge. Any one may try the experiment by asking himself the meaning of

the common particles and conjunctions, which enter into every sentence we utter; and the lesson will be still more impressive, if we put before ourselves such words as truth, time, motion, action, place, freedom, and the like, which every one perpetually uses, and which very few profess to understand.

If these axioms are true, it follows that every word originally expressed some one state of mind, which if considered with reference to the object which produced it, we call a quality. That it represented either a simple idea abstractedly, or a group collectively; and the number included in that group not being accurately defined, but being sometimes greater and sometimes less, according to the accidental differences of persons and objects, from hence results the confusion of language, and the many errors which it has occasioned and sanctioned.

Again, every word will be an idea, or group of ideas, detached and separated from, or considered in connection with some other, and thus we arrive at one primary division of words into substantives and adjectives. And as all reasoning when divested of its mystery is nothing but a succession of ideas, and we have no consciousness except when an idea is in the mind, or rather the mind in an idea, and these ideas, as before explained, must be either detached from each other, or run and be dovetailed into

each other, every word, under whatever shape, must ultimately be resolvable into a substantive or adjective.

But as in the chain of our ideas many links repeatedly recur, which for various reasons it is necessary to distinguish; since on one occasion a predicate may be applicable to them which is not so at another, and as these similar ideas or groups of ideas, are either individuals of the same kind, or the same individual at different moments, we are obliged to set a mark upon the one which we wish to point out, by annexing to it some other idea which is found in juxtaposition with this one only. If a chain was put into my hand, of which the links were represented by the letters of the alphabet, and the letter D recurred ten times; when I desired to point out any one letter D in particular, I could only do it by subjoining another letter close to which it was found; as the D which follows E, the D which precedes P, or the D which is two letters off from K. The letter itself being the same, and distinction being only attainable by creating a difference, that difference must be sought in something external. And just so in the case of our ideas.

Again, in forming our complex groups of ideas it is frequently necessary to combine them of two or more substantives—hung together upon one main and central substantive. As a tree of

great height on the hill near the river—and the Greek language possesses a peculiar facility of throwing these accessory ideas into the form of adjectives. This mode of description is more precise and less liable to mistake, than when all the adjuncts are broken up into separate substances ; but it is less energetic, and either fatigues the mind by keeping it in suspense, or disappoints it by dragging a long train of apparently useless epithets after the principal subject. It may also be observed, that the idea attached to the chief noun may be either one contained in it, or distinct from it—a tree of great height, or a tree on the hill, which may be expressed in Greek either by the combination of a substantive and an adjective, or by a group of two substantives. So also in English, we may substitute a very high tree for a tree of great height, and in old language, a hill tree for a tree on the hill. But the substantive height, expresses a quality supposed to exist in the tree, while the substantive hill, is an idea totally distinct from it. Hence it is that substantives are mostly employed as appendages in descriptions of the second kind. Now whenever, either for the purpose of distinction or description, we annex a second substantive to a former one, we find, that in Greek the second is marked out by a slight inflexion of the primitive form of the word—by

what are denominated cases. In English, as in many other tongues of northern origin, these cases do not exist; and the dependence of one noun on another is denoted by a little prefix, or preposition. These prefixes exist in Greek likewise, and in that tongue are much more numerous and complicated than they are in ours. But in both, from the frequency of their appearance, and the consequent abstractedness of the ideas associated with them, it is very difficult to ascertain their precise and original signification. Some approach may however be made to the peculiar meaning both of the Greek cases and Greek prepositions, if the following principles are admissible.

I. It is very improbable that any language should contain two different forms for expressing precisely the same thing. Synonyms are rarely identical, and when they are so they may generally be traced back to two distinct tongues. It is, therefore, not likely that the Greek cases express those relations which are denoted by the prepositions.

II. If the case comprised any idea distinct from and superadded to the full meaning of the nominative, as in all other instances of compound nouns, such an addition would be marked by the annexation of a separate element to the original word. To express a complex idea we should use a compound term.

But the cases are distinguished from the nominative, solely by a slight inflexion of the terminating sound. It is, therefore, natural to think that they denote nothing but the same idea with the nominative, slightly varied in the mode of contemplation.

III. As the verb and the noun express the same radical ideas, with this distinction only, that the verb comprises also the place of the idea in the order of time, and the person of the subject, it is probable, that a close analogy exists between their respective inflexions; and that if we find the idea in the verb placed in three different lights, each discriminated by a peculiar inflexion; and if these three lights are clearly ascertained there, we may transfer the same notions to the inflexions of the noun, and try without presumption the validity of the hypothesis. And this becomes still more probable when we find that the languages which possess cases, possess also inflexions for these tenses, and that where these are wanting the others are wanting also.

IV. As our whole mental existence is a series of successive perceptions or states of mind, following each other as the links in a chain or the letters of an alphabet; and as there can be no immediate connection except between pairs, as A and B, C and D, let us place any substantive idea in all the several positions which it can

occupy, in such a series, and examine whether both in nature and in number they correspond with the inflexions of the Greek noun.

And first it may be observed, that in all such successions of pairs, the only idea which is presented to the mind in different shapes and lights is the second and final. The first link in the couple universally slides past under the same appearance. But the check which is given to the thought by coming to a close, throws it back upon the ultimate point, just as boys are found to dwell upon the last word in a sentence, when the continuation is lost to the memory ; and we all of us naturally linger at the termination of any employment. In some instances, indeed, a single idea is presented to the mind in these three different forms, as in exclamations of surprise, admiration, or suffering, and the cases vary accordingly. If this principle be true, we should expect *a priori* that the first idea in all those pairs which, as substantives, are linked together, should always be expressed by one uniform inflexion. And that the second only should be subject to modification. And this second we should find would appear under two different shapes ; that is, it may either occur but once, or it may vibrate, as it were, upon itself, and be repeated several times. In the former case also it may be susceptible of two positions ; for it may

either come full and distinct and with a sort of totality and completeness upon the preceding idea, or it may be detached from it by an interval, which may serve to suspend the mind, and present to it but a vague, indistinct, inceptive, and anticipated perception.

To repeat the statement. If all our substantive perceptions occurred singly, the noun would perhaps admit of no inflexions of case. But as frequently, for the purpose of description and distinction, they are placed together in pairs, the first of the two will occur in one uniform shape, which is termed the nominative case; the second will admit of three inflexions, accordingly as the idea occurs but once, or repeatedly without extraneous interruption; and if but once, accordingly as it is presented fully and completely to the mind, or is kept at a distance and suspended by any imaginary interval. Precisely in the same manner as we find the being, the action, or the passion represented by the Greek verb, is placed in three different lights, as perfect, imperfect, or inceptive. Perfect, when it occurs as a whole and completed unity. Imperfect, when it is conceived in duration, that duration implying an uninterrupted repetition of a primary idea. Inceptive, when it is looked forward to as through a vista, as something about to be done, or about to exist, and not yet fully brought

before us. If it is concluded that this notion of substantive ideas or groups of ideas being connected only in pairs cannot be true, because frequently a whole cluster are massed together in the same description, as in the sentence, "Cicero was killed in his litter near the sea by the officers of Antony;" it is to be remembered, that sometimes the primary idea or nominative case is to be repeated to two or more sequences, and that where this is not the case, the sequences are themselves connected in couples. To acknowledge, however, that the mind cannot be sensible of more than one idea at a time, implies that their succession must be carried on in the manner before described.

Assuming, then, as an hypothesis, the above explanation of the Greek cases, and remembering, that whenever we endeavour to ascertain the meaning and intentions of ages long since past away, where no positive explanation has been transmitted to our hands, an hypothesis is all that we can attain; we might proceed to try its application and validity in deciphering the precise meaning of the combinations in which these cases occur. To trace it out through all its ramifications is by no means the object of the present sketch. The study of dead languages is principally valuable from the exercise which it affords to the mind; and

every conjecture should be left to be sanctioned or refuted by the observation of the individual inquirer. A few hints, however, may be thrown out. Let the genitive case indicate the second of two substantives conceived in its unity and totality. The dative, the same substantive as removed by an interval from the former, and presented as incipient and prospective. And the accusative the same likewise, when contemplated as recurring upon itself. A single note in music may represent the first case; one which, from previous association, we are ready to anticipate and slide into, the second; and a long-protracted, uninterrupted swell may illustrate the third.

The genitive then will take the widest range, and admit of the greatest variety of instances. It will express the second of any two substantive objects considered in the relation of rest; the point from which motion proceeds, since amotion implies the contemplation of such a point in its extremity, and consequently as a whole; the point to which motion proceeds, when the motion is made to the extreme. And all the varieties of substances from which motion can be conceived to arise, will also be included in the same case.

The dative again will imply an object merely approximating to a former—where an interval exists between them; the circle within which

a substance is contained, since there such an interval necessarily exists ; the point towards which motion is making, when such a point is indefinite and uncertain ; the object to attain which an action is performed, and the subject which the same action is likely to affect. The relation of companionship, of instrumentality, of similarity, and addition, will all, from the same common principle, be expressed in it likewise.

Lastly, the accusative will express every object which is conceived in its property of extension or duration, or which from the circumstances in which it occurs, necessarily dwells on the mind, and repeats without interruption one simple and primary perception. In this form, therefore, will occur the lines which form the basis or parallel of a moving body, the moving body itself, the point to which it is moved, when considered as extended, as in the case of motion into ; and more generally when it occurs to the eye again and again as every object must do, towards which we are progressively advancing ; so also the substance in which any change is perceived to take place, since change can never be perceived without extension ; so also the parallel line of a substance conceived in extension either continuous or discrete ; so too any length of time as well as of space. The subject of any affec-

tion; the point which in quitting we leave entirely so as to vary that extension which is not dwelt on while the object is relatively at rest; and the occasional cause, or that, the presence of which, without any implied communication, produces a change in some other substance;—either the attention of the person acted on, being supposed to be directed *to* the acting cause, or a change in one substance necessarily implying extension not only in itself, but also in the parallel which affects it.

To adduce instances of all these uses would require a voluminous work; and they are obvious and easy of access to every one in the slightest degree acquainted with the Greek language. But it may perhaps be worth remarking, that the laws of mind which sanction this conjectural interpretation of the Greek cases supply us also with three primary principles under which all our pleasures and pains, however complicated and abstract, may accurately be classed.

Into the combinations, however, which these cases form, the words denominated prepositions perpetually enter. And, although our own language by no means delights in elliptical expressions, which leave out the main word in the sentence, that word which designates the relation; nor are English hearers so acute as spontaneously to supply such deficiencies with-

out guide or assistance ; the Greeks, if very eminent scholars can be trusted, did possess such a power, and consequently never hesitated to employ words or combinations perfectly unmeaning, omitting the preposition which gave light to the whole sentence, and trusting for the interpretation to the ready suggestion of their hearers. Whenever, in fact, an oblique case occurs, which does not fall in with the common grammatical syntax, a preposition is said to be understood. And in this rational creed we have all been brought up from our infancies, although even the insertion of the preposition could never account for the employment of the case ; and there was no more reason why a particular case should occur in those common and obvious forms which grammar had already attempted to generalize, than in others more rare and perplexing. Whatever opinions are entertained respecting the real significations of these inflexions, no philosophical inquirer can doubt that some significations do exist independently of any other words ; and that prepositions are not requisite to invest them with an adequate meaning.

Rejecting however this part of the office of prepositions ; namely, the concealment of our own ignorance by that most convenient of all technical sophisms, the term *subaudito* ; it may be worth while to frame some plausible hypo-

thesis respecting their real nature and use. They constitute so very important an element in the Greek language; assume such a variety of forms, and present such a labyrinth of significations to the student, that the absence of any intelligible account of them, even in our most popular grammars, is, perhaps, the most singular defect in the whole history of philology. The conjecture which I have ventured to offer on the nature of the cases, may perhaps have appeared too abstract and refined to be consistent with truth; and it is probable that the same objection may occur to the following hypothesis. No one, however, can have studied the Greek language, even superficially, without observing a wonderful depth of metaphysical knowledge exhibited in its structure^d. In many parts it appears to have anticipated some of our latest discoveries in the science of mind. And whether we attribute it with a Scotch philologist to an artificially constructed system, or to gradual modifications, introduced by very delicate and refined perceptions, or even, as we may be tempted to think, when the importance of this philosophical accuracy is viewed in connection with the knowledge of which it has been made the medium, to some more providential circumstances; there can be

^d See Appendix (D).

very little doubt, if the *a priori* reasoning recommended by Locke is applicable to any language, it is to the Greek. In the most remote and depopulated countries at this very day, relics of art and science are frequently discovered, which irresistibly carry us back to some anterior period of the world, as gigantic in the growth of its intellectual powers, as in the animal and vegetable creation. And a very similar feeling is excited when we study the language of the Greeks by the light of a modern philosophy. What degree of knowledge was possessed by those who framed it, we cannot tell. It might, indeed, have sprung out of fortuitous contingencies. But it is very much like finding a steam engine in the tumuli of Siberia.

To return, however, to the Greek prepositions.

If some former conjectures on the origin of language are correct, it would seem that these mysterious words must originally have stood for some tangible, visible, and determinate objects. However abstract they are at present, they never could be abstract in their original signification. Such a position is totally opposed to every acknowledged principle of the human mind. They must originally have been nouns—and, without any very profound investigation, it is very clear that they were nouns employed

to indicate place. Now, if we consider the mode by which we designate locality, the analogy will serve as a very easy clue to a probable solution of the problem. To mark out the place of a chair, or a table, or a book, or any other object, what must be done? Some other external object must be taken with which it is in juxtaposition; as the chair near the window, the table by the bed, the book on the shelf. And if this addition of a second object would adequately point out the precise situation required, no prepositions would necessarily exist in any language. But inasmuch as A, though in juxtaposition with B, may still admit of being placed in very many points and positions, how shall the precise locality, the one single point in which it exists, be accurately pointed out? Surely by naming some one part of B as an additional index, just in the same manner as when we direct a letter to a stranger, we annex the province to the country, and the town to the province, and the street to the town, and if it be necessary, the house to the street; and it may be in some cases even the part of the house to the number which indicates it. The successive ideas gradually limiting and narrowing the circle within which the object is to be found, until no room can exist for doubt or mistake. And as each successive idea in this case is included in that

which preceded, and formed a part of it, so it is probable that the same natural process was observed by the original framers of the Greek and other languages; and that the second index of locality was selected from a part of the principal index—just in the same manner as we now speak of horses abreast, or neck and neck, of beating by a head, of being placed on the back of a thing; where the words breast, neck, head, and back, are so many substantives introduced to designate the exact position of the first idea in its relation to the second, and are themselves parts of the second. Now it is not an improbable hypothesis, that the Greek prepositions were just as much nouns as these words which we know to be nouns—that they designated certain parts of things—that the names were originally assigned to those parts upon the same principles which have moulded language in general, though, perhaps, not at present to be traced in this particular instance. Unless, indeed, in the oriental languages we were to find that the roots of the Greek prepositions, were expressions for parts of the human body, of agricultural instruments, or of any other visible objects, which having assumed the names first, would gradually, by the instinctive process of abstraction, communicate them to all analogous relations; just as we call the top of a mountain its head, and the front

of a house its face. And if we find that the abstract notions thus attained, must, from the very nature of things be limited, or at least extend to a certain number; if we find that this number exactly coincides with that of the Greek prepositions; and if, on tracing out all their various uses, we can, by the employment of legitimate analogies, reduce them all under these primary significations, then we may fairly presume that the hypothesis, if not really correct, is at least a very singular coincidence with a difficult and complicated cipher.

Now every visible object must present itself to the eye in one of three forms—as a line, or a superficies, or a solid—there is no other. And we need not have recourse to geometry to prove this. A line must evidently be composed of the following parts, from its every essence as a succession of points. First, there must be a point or part to commence from, and a point to end with, and a space or line in the middle. Without divisibility into these portions it would be no line. Here then are three primary substantive parts, to designate the locality of an object. But a line may be either horizontal or perpendicular. And those parts which are merely considered as extremes in the prior case, will naturally obtain different denominations in the second, because the physical perceptions of ascending and descending, are

something very different from those produced by traversing a plane. And lastly, the intervening space between the extremities of the line may assume three different appearances: for it may either form a portion of the same substance with them, or it may be a different substance connecting them together, as a chain attached to two men; or it may be a chasm unfilled up; the line being formed by the passage of the eye from point to point, and not created by any positive continuity of body. Besides these cases there seem to be no other existing or conceivable. Let us suppose then, merely for the sake of argument, that the word $\pi\rho\delta$ indicates that point or part of a line which is first encountered; that the other extremity has no appropriate name, unless $\delta\pi\acute{\iota}\sigma\omega$ be attached to it, but is expressed either by $\epsilon\pi\acute{\iota}$, or $\iota\pi\delta$, according as the perspective presents it, as it must do, in one of these lights. That $\alpha\nu\acute{\alpha}$ serves for the top portion of the perpendicular line, $\kappa\alpha\tau\acute{\alpha}$ for the lower, $\mu\epsilon\tau\acute{\alpha}$ for the intervening part, when consubstantial with the extremes; $\sigma\upsilon\nu$ for the same when the medium is an extraneous body; and $\delta\pi\delta$ for the same when it is nothing but a space or interval. It may be advisable to lay no stress on any conjectural etymologies, though such as present themselves evidently favour these definitions.

To proceed however to a superficies. This

also, from its very geometrical essence, coupled with the necessary operations of our senses, must give us the following parts. A plain surface, a boundary line or circumference, a space inclosed within that line, and another space external to it. And it will also admit of being divided by a line drawn through it. Let us suppose that ἐπὶ stands for the plane, περὶ for the circumference, ἐν for the interior, and ἐκ for the exterior space, and διὰ for the line which cuts the plane, dividing it into two parts. Here also etymology is favourable.

Lastly, let us take a solid, and we shall extract from it the following portions. An upper surface, an under surface, a side, and, where the solid is hollowed out, two sides, a superficies fronting us, and one in the rear. Besides these a solid involves no primary essential parts. ὤψωρ then, by the very sound, expresses the upper surface; ὑπό, the under; παρά, the side; ἀμφὶ, the two sides; ἀντι, the front; and what is singular, the rear is left apparently without any representative, since it never could be visible; unless again we have recourse to ἐπίσω, of which the etymology is obvious. All these respective words, if we judge by the analogy of language, must originally have expressed corresponding portions of certain common and familiar objects, named not from any consideration to their abstract relations, but

from some prior accidental circumstances; and their names must subsequently have been transferred to the analogous parts of other objects, until nothing was left to them but the one common abstract relation, which to us has been totally lost.

In this catalogue two prepositions have been omitted, $\pi\rho\acute{o}s$ and $\epsilon\iotaς$. They appear to be compounded of $\pi\rho\acute{o}$ and $\epsilon\nu$ severally blended with the particle $\sigma\epsilon$, which we find enter frequently into the designation of place. And if we consider that the local relation of one object to another must be a relation either of motion or rest; and that from these two cases we can only gain three ideas,—those of a fixed, an increasing, and a decreasing interval, we shall find reason to believe that these were the original significations of $\theta\iota$ or $\theta\alpha$, $\theta\epsilon\nu$, and $\sigma\epsilon$. The first being employed when the two objects were at rest; the second in the case of motion; the third in the case of approximation; or, to translate them plainly, when A was either at B, or going from it, or moving to it. However abstract these little words, *at*, *to*, and *from*, with their corresponding particles in Greek, may seem to be, still it is evident, that the only ideas which can legitimately be attached to them are those which have here been mentioned, because no others are or can be involved in any case, to which they are applied. $\pi\rho\acute{o}s$ therefore will

mean to-before, or towards; *ἐς*, to-in, or in English, into.

From these primary significations of the Greek prepositions many others are deducible, partly analogous, and partly comprehended under the same term, from their uniform or general coincidence in fact. To have traced them regularly out into all their deflections would have been a task far exceeding the limits of the present observations. But after rigidly applying the preceding hypothesis to an infinite variety of cases, with a resolution to admit none but natural and easy analogies, it has been in no slight degree a confirmation of the theory, a confirmation which the want of time only has induced me to defer, that all the prepositions without exception, and all their innumerable meanings, have fallen naturally into their places, and that even the stubborn *μετά*, the most indocile and untractable of all, which starts up at one time as *with*, at another as *after*, at another as *change of place*, at another as *participation*,—even *μετά* has been reduced into order :

Succubuitque jugo, et lentas admisit habenas.

There are but two other questions respecting these prepositions which require attention. First, their adverbial uses, and secondly, their indeclinable form. With regard to the former

it appears that they never deviate from their strictly local meaning, even in the most abstract combinations. And that the only difference between their signification when joined with cases, and their use when entering into compound words, is derived from the expression or implication of the main object, the relation of which to some other object they serve to denote. *παρὰ* with a noun, B, implies the position of A at the side of B. *παρὰ*, in composition, when it signifies amiss, signifies the same A at the side of some other point or standard, which the sense of the context must supply. In one case the second object is specified, in the other it is merely suggested; and so with all the other adverbial uses of the several prepositions.

The question why these words, if nouns, are not declinable, may be answered by referring to a preceding hypothesis respecting the meaning of those inflections of the noun which constitute its declension. Both from the nature of the thing, and the position of the words, it is evident, that those parts of the second object which denote the more immediate relation, the more precise point of locality in which the first stands to it, never dwell upon the mind as separate ideas, susceptible of different phases, but are introduced merely as adjuncts, and attached to the main noun, much in the same

manner as any other initial elements of compound words, which, though formed from substantives, never assume any variety of inflection.

The conjectures of etymologists are in general so unsatisfactory, and in this case of so little importance, if the hypothesis itself accord with the facts, that I have cautiously abstained from indulging them. But it may be worth while to point out the frequent repetition of the element $\pi\alpha$, $\pi\alpha$, $\pi\iota$, and $\pi\epsilon\rho$, in the composition of these prefixes; the recurrence of the same element in the particle $\pi\epsilon\rho$, and its acknowledged significations of stability, firmness, certainty; notions which would naturally be expressed by the analogy of a solid plane, and, perhaps, of the surface of the earth. And if a similar element with this latter meaning was found in any cognate or original language connected with the Greek, it would materially support the conjecture. Ἀμφὶ evidently exists in the pronoun ἄμφω, and διὰ in δις, or two parts; μετὰ and μέσος are also cognate terms; σὺν, without any great demand on the fancy, might be connected with ζυγόν; πρὸ we possess ourselves in the shape of *for*, or, more obviously, as the prow of a ship; ἐπίσω, *out of sight*, is also clearly to be traced; and probably the few which remain might find their original uses in some oriental tongue.

Upon these observations on the elements, which constitute the substantive groups of perceptions, which in logic are termed the objects of simple complex apprehension, the consideration will naturally follow of the other grammatical inflections in the noun, which designate number and gender, and in adjectives the notion of comparison.

I cannot, however, proceed in observations so very abstract, without again excusing its necessity to those who are contented with what is generally termed practical common sense; and conceive that the rules of syntax are a sufficient explication of grammatical constructions; just as a common man perceives no mystery in the descent of a heavy body, because the law of gravitation accounts for it; totally forgetting, that the principles and the facts are in such cases perfectly identical; and that what we term laws of nature, as well as laws of grammar, are merely generalized expressions for the phenomena themselves. In tracing, indeed, the causes of things in the physical world, we very soon reach a point beyond which we cannot proceed. When we have resolved the chain of consequences into their immediately proximate links, the utmost end of human inquiry has been attained. But in the mysteries of language we are quite sure that we are very far removed from any such limits. They are

effects of which the causes must lie in the operations of the human mind ; and there we must go for their explication. Unless, indeed, there are any persons content to shelter their own indolence under the plea of difficulty and inutility ; and anxious to attain a conviction that the science of the human mind is unnecessary, because, like every other branch of knowledge, it demands patient and laborious investigation. And if a different class of inquirers are willing to acquiesce in a rough general statement of facts, instead of a minute scrutiny of ultimate principles, they should remember that such coarse and inaccurate views of things, instead of facilitating the acquisition of knowledge, involve it in tenfold perplexities. The more universal the principle, the more easy it is to imbibe. When we are placed on the pinnacle of the hill, we can easily find our way down ; but are very likely to lose our course if we start from any point short of the summit. And in the science of mind, principles, when attained, are, beyond all other rudiments of knowledge, invaluable, from their unlimited application to all the diverging operations into which they run, whether moral, intellectual, or physical.

Starting, then, on this voyage of discovery, without any presumption of final success, and only resolute to persevere till we have approached as near as possible to the pole, we

may venture to propose the following conjectures on the mode by which we acquire our notion of number, principally with a view to explain some apparent anomalies connected with it in the Greek language.

When we use the expression, very common in metaphysical writers, that we possess in our minds an idea of number, such an assertion is very likely to mislead. Of the word number, that is, of the sound, we have, indeed, a very distinct perception: but of number abstractedly we can have no idea; any more than we can have an abstract idea of motion without a moving body, or extension without some extended surface, or of time without a succession of individual perceptions.

Let us, then, suppose a blind man suddenly called into existence, and a sensation of warmth excited in his mind: if, the moment this sensation ceased, his consciousness was extinguished, it is evident that he would not have acquired any idea of number. Again, suppose that the same individual could exist in any number of perceptions, however multitudinous and various, and yet those perceptions, or states of mind, were perfectly insulated and detached from each other by intervals of suspended consciousness, it is equally evident in this case as in the former, that no idea could be obtained of plurality. Every perception would be to

such a man a point in existence without any series connected with it either by memory or anticipation.

Let us take a third case. Suppose by any means the human eye, without any interruption from muscular sensation, could be made to convey to the mind the idea of an unbroken plane of colour, in which various shades and gradations melted secretly and imperceptibly into each other, as in the expanse of the heavens, in which the deep blue of the centre slides quietly into the light of the horizon; here again it seems certain, that although the state of mind produced by such a transition would in reality be very different, of that difference there would be no consciousness, and consequently no notion of number.

Now, seeing in this last case the ease with which the mind falls imperceptibly through a series of states, but very slightly changed or inflected, let us suppose a fourth case, in which, being differently constituted, it would pass with the same facility into states the most opposite and remote from each other. And here also it would seem, that although in each sequence the feeling would be different, the difference itself would be imperceptible. We should no more perceive a distinction between the colour green and the colour white, than between two imperceptible gradations of an aerial

tint. And that such would be the case is evident from experience. For we never think of comparing, that is of observing distinctions between ideas which fall naturally in with our existing train of association. It requires effort, and attention, and care, to discriminate at all; and if our minds were originally organized as we can now mould them by habit, to slide easily into any series of states however different, we should never have attained any notion of distinct perceptions, and consequently none of number.

The confirmation of this might be drawn out to a great length, but it may be easily traced by each individual for himself; I merely wish to infer the conclusion that our whole perception of distinction arises from that law of mind which renders its operations the very reverse of that just supposed; which gives it a tendency to pass on into one sequence in preference to another; and which makes us sensible of a difference solely when this anticipated sequence is checked or broken.

And this law may be reduced under two heads,

First, a tendency of the mind, when uninterrupted by other external impressions, to repeat and vibrate upon the same idea.

And secondly, a tendency to run into any series of states, however dissimilar, which have

once been dovetailed into each other by repeated association.

So that we may arrive at a notion of distinction, and consequently of plurality, by two methods.

Let a plane, of which half is painted black, and half white, be placed before the eye of an infant. If its mind can be fixed steadily on the contemplation of one colour (and be it remembered, the idea of a plane is nothing but a repetition of similar points of colour running into each other, and generating lines by the duration of the vibration or impression, after the removal of the primary causes, just as a stick on fire, when whirled round in the air, describes a continuous circle); if, I say, the child's mind, or perhaps its eye, can be made to repeat consecutively, for a certain number of times, the perception of this one colour, it will acquire a tendency to continue the idea, and when that tendency is checked by the occurrence of another colour and perception, it will immediately become conscious of a difference; it will attain the notion of two colours, or two states of mind. If the two colours were presented to the eye with such an interval between them as to allow the entire cessation and dying away of one perception before the other occurred, no distinction would be perceived between them. And if any one doubt

this, let him endeavour to perceive the distinction between any two notes of music, or any two shades of colour, or any two sensations either of the touch, or the smell, or the palate, without bringing them closely into juxtaposition, and he will ascertain its impossibility. Such an attempt involves in fact a self-contradiction, for it presupposes a perception of relation, without the existence of relation; the discovery of a difference in a single term; and a comparison between two states of mind, when we are conscious of only one.

Let us suppose then that a man born blind, and brought into the world for the purpose of the experiment, was made to taste an acid, and immediately afterwards a sweet, or to have his hand transposed, without interval, from a fire to an ice pail, he would even by these two perceptions, and the intervening sensation, although instantly annihilated upon them, have obtained a notion of difference, of number, of succession, and, consequently, of time.

If his eyes were opened and permitted to traverse a plane divided between two different colours, excluding all intervention of muscular sensation, he would in this case also attain to the notion of two units, and two only, whatever might be the extent of the coloured surfaces. But the greater the extension of the first, the stronger would be his perception of difference

in passing into the second ; since by a primary law of the mind our tendency to repeat a perception increases with the repetition itself ; and the sensation of interruption is exactly proportioned to the strength of the tendency. If, therefore, a plane was divided between three colours, each of equal extent, the perception of difference at passing out of each, would be equal likewise. And as the extent was diminished, this perception would proportionately fade away. Until, if reduced to a single line, the mind would dwell on it so little as scarcely to be sensible of any distinction between the two surfaces divided by it, and would run them both into one. Thus to a savage a man on horseback would present but a single unit, since the eye would easily pass over the faint shadows which marked the separation. Let those shadows, however, be expanded into any considerable space by the removal of the man, and the substances would immediately become two. The mind would be checked and thrown back when it came to the terminating lines, first of the man and then of the space intervening. And as it is the sensation of this interruption which conveys to us the notion of number, we should more naturally say that the man and the horse were two, than the man and the space between them. It need not be observed that whether we discriminate

between two simple sensations, or between two compound units, the several parts of which have been blended together by frequent association, the process is precisely the same. The perception of distinction, and consequently of number, is in this latter case, as in the former, produced by some check given to the mind when running through its chain of ideas; either by the absence of some expected link, or the presence of one unexpected; though, perhaps, this second mode may be resolved into the former. If we saw a buoy floating in the water out of sight of land, and having accurately collected together all the ideas which it conveyed, were then to be shown another precisely the same, that is, producing no alteration or break in the series into which we should naturally fall, we should not conceive the existence of more than one: we should pronounce them identical. But if the first buoy had produced five ideas, and the second suggested only four, the check thus given to the mind in its progress into the fifth, would make us sensible of a difference, we should say there were two buoys. And whether the link deficient was part of the buoy, or a mark external to it, but locally inseparable, as the shore near it; whether it occurred in the second, or was perceived in the first, when recurred to from the second, the process would be precisely the

same ; so that our notion of number may universally be resolved into that sensation produced by a check in our anticipations. It cannot exist without the perception of similarity, and of difference, nor without the notion of time. And thus it is that we more readily class together numerically groups of objects which affect us in a similar manner, than those which are very distinct ; that in counting, an army for instance, we form our units from the men rather than from the men and the horses.

Without remembering that there is a wide distinction between existing differences and existing numbers, and the mode by which we become conscious of them, these observations will appear frivolously and vexatiously minute, and perhaps self evident. But the vagueness with which these operations of the mind are usually described is productive of much mischief. And when any phenomena are to be explained, it is always desirable to do it by ultimate principles, however simple and abstract. The subject might be illustrated very diffusely, and not without utility in connection with the fine arts, very many of which involve rules founded entirely on this process of the mind. But at present we have only to apply it to certain apparent anomalies in the numerical inflections of the Greek language.

And first it may serve to explain why the

dual number is natural and philosophically correct, since no comparison can take place except between pairs. And the moment we get beyond this point, if we wish to form any positive idea of number, we are soon lost and confused, and must be content with a vague sense of unchecked progression, instead of any clear and definite notion. And this is evident to every one; for we are perfectly unable to count, except by creating artificial differences, and such differences as will singly and severally imply all the units which have gone before, without the necessity of actually retracing them. Thus in counting the strokes of a clock, either with our fingers, or by employing the sounds which represent numbers: if we used but one finger to beat with at each stroke, we should immediately become perplexed; but by taking them in succession, each denotes the exact place of the stroke which it represents; and the words three, four, five, six, and the rest, act in the same manner. We have ourselves at each change a perception of two units only; and never could retain those which had preceded, unless, with the mark of each as it was added, we were able to combine a mark of their place in the numerical order.

Secondly, the phenomenon of a neuter plural nominative, and sometimes even a feminine or masculine, coupled with a singular verb, may

be thus explained. For fixed inactive substantives (and this is evidently the signification of the neuter gender) naturally permit the mind to form them, though distinguished by lines, into units. We are checked much less in passing the eye from one house to another adjoining it, than in running through a number of substances, which either are or have been seen in motion. And hence, whenever the neuter noun in Greek expresses a living being, the verb reappears in the plural. So also probably when the substances are not continuous, but discrete, as in Homer: *καὶ δὴ δοῦρα σέσηπε νεῶν, καὶ σπάρτα λελύνται.* B. 135.

Thirdly, whenever a number of individuals are massed together, as an army, or a crowd, or where they are spoken of collectively in any relation which does not necessarily imply an interval between them, the whole compound group thus formed by the same kind of easy transition as before described, becomes a single unit; it will be expressed in the singular number; and whenever the predicate is the result of their combined forces only, the verb will be in the singular likewise. Whereas, if the predicate be an attribute which is discernible in each individual, the verb will be in the plural. When an army repulses an enemy, the verb is singular: when the same army are said to be brave, the verb is plural.

Fourthly, as dual nouns are sometimes coupled with plural verbs, on the principle that the genus is included in the species; so in some peculiar instances the case is reversed, and plural nouns, or more than two individuals, as subjects, are connected with a dual verb. And it need scarcely be observed, that in this case the subjects, however numerous, are considered under two heads, and reducible into two divisions. Thus Homer, addressing four horses, speaks of them in the dual, because they were coupled in pairs; and so also of the sailors who are ordered to furl the sails and take down the mast, because in all probability this operation required their separation into two bodies.

To these principles several apparent exceptions may possibly occur: but by the admission of exceptions generally so much mischief is produced, in accustoming the mind to careless views and inaccurate modes of thinking; and the precision of the Greek language is so minutely and invariably philosophical, that every effort should be made to reduce such anomalies; and even abandon, if unsuccessful, the theories which refuse to include them. No notion is more common among younger students, than that words may be used indiscriminately; that a possible sense is the real sense; and that the meaning is first to be imagined,

and then the language distorted to suit it : a principle which is obviously destructive of all rational canons of interpretation, and all the interest of philological studies ; but which must continue to prevail till we remove as far as possible the chapter of exceptions from our grammars.

The nature of those inflections, which in the Greek and other languages distinguish the genders of nouns, has been accurately explained by others ; and is itself so obvious as to require but little illustration.

No one can have examined the structure of the Greek noun, both substantive and adjective (for in fact they are essentially the same, and, as before observed, differ only from their accidental position, as separate or connected with others), without perceiving that they are evidently constructed from uninflected roots of various terminations, united to the words which have become known to us in a separate form, as the article and pronoun. To trace this principle through all the apparent irregularities of the declensions, would require an elaborate discussion : but to assert it in the most qualified manner, it is at least highly probable ; and it explains the cause of an essential distinction on this head between modern and classical languages. The gender of a word is essentially marked out by its composition in Latin and

Greek. In the English, and many other tongues, it is still left to the caprice or association of each individual. That the freedom of our own language in this respect gives great scope for the fancy is very obvious. Poetry is never so delighted as when embodying abstractedness and inaction in living and breathing motion; and the whole energy of personification frequently depends on the selection of the gender.

But where the inflections of case were at all regulated by the generic character, perplexity would frequently be occasioned from the want of an obvious classification under which to refer nouns. And Grecian poetry suffered less than many others from the restrictions imposed on its powers of animation and creation: enriched as it was by mythology with a multitude of invisible agents already invested with reality.

The principle, however, which guided the Greeks in their generical distinction of nouns was precisely the same as that which influences ourselves and all men in their daily personifications of inanimate objects. Whether fixed in the language, or left open to variation, the rule was still laid down in the laws of our natural associations. We discriminate every moment between dead, motionless, and passive substances, and such as are instinct with action.

and animation ; and the peculiar ideas and associations which arise from the relation of the sexes immediately suggests a subordinate division of active beings. The existence of any quality or analogy primarily perceived in a man, or a woman, or an inanimate substance, would classify the object which contained it as masculine, feminine, or neuter. As we apply the word horse to distinguish other substances, in which the notion of strength, magnitude, and consequent coarseness is involved, as a horse chesnut, a horse radish, and even a horse laugh ; so the word which primarily denoted, perhaps, an individual man, was applied to everything endued with the characteristics of a man. And thus too in the other genders, strength, activity, preeminence, duration, and other derivative attributes, were designated by the masculine noun, or what is become to us the pronoun, *is*. Weakness, fragility, the object of affection, the principle of production and nutrition, dependence, subjection, in short, every feeling and idea which flow from the relation in which woman stands to man, would be in like manner indicated by the name of woman. And the analogy of all languages is curiously consistent in applying these two sounds respectively, as they exist in Greek, to the several qualities thus naturally coexistent. Lastly, under the head of neuter nouns would

be placed everything considered as merely passive, as useless, sometimes as contemptible, but in a greater degree than when the feminine attribute is annexed; and in general every object to which no definite notion was attached, to reduce it under either of the previous heads.

Three usages of the neuter gender may be mentioned, which are curious not from their peculiar employment in Greek, but from their frequent appearance in other languages. First, its signification of a diminutive, even when the primary notion is a living being; and this sometimes in contempt, sometimes affectionately. A nurse talking to her baby, and Demosthenes thundering against Æschines, would equally divest their subject of all pretensions to vitality and action. The phenomenon, perhaps, may be thus accounted for. The notion of power, which we derive entirely from the perception of principles of motion, naturally involves that of dignity and value; and the opposite characters will be easily designated by the opposite analogies. And if we look into the constitution of our nature, we may find an explanation of our tendency to neutralize the objects of affection; either in the frequent connection remarked by Burke between minuteness, delicacy, beauty, and consequently love, and the natural association of diminutiveness with inactivity and helplessness; or perhaps

still more deeply within us, in that mysterious attraction which the littleness and dependence of an object exercises on our sympathy; a principle which, if fully developed, might illustrate the most singular prodigy in the whole history of man; his proneness to create objects for worship out of brutes and inanimate substances.

A second usage of the neuter gender, found principally in the tragedians, and designating the first person, is curious, but obviously natural; since the parts of the body are, separately, inactive, and would be considered in that light when referred to as signs of the existence of the man himself, or the essential part of his nature.

A third case in which it is employed, is to express animated beings, particularly in the plural number: τὰ τέλη τῶν Λακεδαιμονίων, instead of the magistrates, as we speak of the court of St. James, or the Ottoman Porte. And generally in such instances something is predicated of an office, or relation, rather than of the individuals who fill it; and the relation itself is naturally expressed by some one of its circumstances, without necessarily implying action. And this particularly holds good where the office is permanent, and its occupiers shifting. The cabinet instead of ministers, and the pulpit instead of the preacher, are metaphors common on the

same principle. Other cases might be adduced of a similar kind : but they easily occur to the student, and may probably be all accounted for and reduced to some general principles. The anomaly of nouns masculine in one number, and neuter in the other, might probably be brought under the observations before made, respecting the inflections of number. Thus in Latin to those who believed in the fixedness and stability of the firmament, *cælum* would be the natural word to express it; while those who conceived the heavenly bodies to be set and whirled round in a number of revolving spheres, *cælos* would be the appropriate term. And the same conjecture might, perhaps, be applied to many instances in Greek of a similar nature. For it never can be repeated too often, that grammatical rules are not founded on caprice or whim, but, like all other effects of human agency, spring from some cause in the human mind. And to be satisfied with a technical word as an explanation of a phenomenon, without tracing the fact back to its primary source, is a much more mischievous proceeding, than to tax the imagination for a clue which, if it does not satisfy the reason, may at least exercise the understanding. Every thing must have a cause, and to ascertain these causes is the business of philosophy, whether working on the physical operations of nature, or

the inflections of a dead language. The process in both is precisely the same ; and it is to prepare the mind for the one pursuit, that we exercise it in the other.

The inflections which have hitherto been considered of gender, number, and case, are common to both adjectives and substantives ; and in grammatical language they agree in them ; or, as it is expressed with greater impropriety, the substantive governs the adjective. The real cause of this apparent harmony will be obvious, when we observe the mode in which the same word performs the transition from one class of terms to the other. In English, having no inflections of the kind, no such concordance takes place ; and whether we gain by the variety of terminations, which this want permits to us, or lose by an occasional obscurity, may be a difficult question to solve.

If a previous observation on the distinction between substantives and adjectives be correct, if they are respectively the same word representing the same quality, or group of qualities, and assume an independent or connective character solely by the relative position which they occupy in the mind ; a single horse in shafts, to use a common illustration, indicating the substantive, and the same horse in a team acting as an adjective, it is a natural question, by what means they have become so widely

separated, both in the Greek and in other languages, as to form two distinct classes of words. And the process is the following. It has before been remarked, and it is too well known to require remark, that from the want of a separate sign for each single object, we are frequently obliged to denote an individual by the word which designates a class; that is, by some quality which is in no way peculiar to it, but is found in many others. We wish to describe the thing which contains our pen and ink, and we call it a *stand*. To reduce the number of objects, within which it may be found, still farther, we add to *stand*, a word expressive of certain other qualities, *ink*; and thus the doubt is limited to those things only in which these two circumstances are found united. Precisely in the same manner, when we wish to direct persons in discovering the author of an action who is known to ourselves, but not to them, we describe him first perhaps as an acquaintance; then, if this is not sufficient, as an acquaintance living in such a country; and, if this is not enough, as an acquaintance living in such a country, and of such and such character. And thus we continue adding circumstance to circumstance, until a certain number are accumulated, which collectively are applicable to but one individual. It may also be observed, that in form-

ing these primary distinctive combinations, which, if we choose to employ logical terms, we may call species composed of genera and differentiaë, we seldom employ more than two members, as ink-stand, lamp-oil, writing-book, tea-chest, and the like ; and that the rest of the designation is performed by the article, with some other adjuncts, not immediately blended with the principal or generic index. As this process is perfectly natural and instinctive, it is not surprising to find it employed by the Greeks : and the first difference which they selected in order to limit the number of individuals, within which the object to be specified was to be sought, was the word which to us has become the pronoun and the article, but which assuredly in its primary use signified a man, a woman, or some passive inactive object. The union of the radical quality with the qualities designated by the pronoun substantive (which at that time it must be remembered was no pronoun at all) served to indicate the individual in which alone these two series of elements were found. And when a farther specification was required, the same process was repeated ; and the same pronoun was not again subjoined, but prefixed, in order to mark out the exact individual. This prefix to us is the article, and its peculiar uses will occur hereafter. Thus the word *καλ* would express

the first object, A, which affected the mind with a feeling of beauty. And if no second object occurred which produced the same result, this A would not require the annexation of any other word to the former to specify it accurately; *καλ* would be a substantive. But when many objects of the same kind occurred, as B, C, and D, A would require to be pointed out by some feature of difference. This difference the Greeks took from the real or imaginary gender. If the qualities denoted by the masculine, for instance, were found united with the radical quality in one individual only, no farther difference would be necessary; and *καλός*, *a beautiful man*, would be as much a substantive as *καλ* was before. But when the number of things in which this union occurred increased, then some new attribute, or even many, were selected to single out the unit intended. And without such an attribute *καλός* became an adjective. The fact is still more obvious in the proper names of the Greek language, which still retain their adjective form, and substantive use, even in some cases without the article. The terminations *tas*, *tudo*, and others in the Latin language, and *ity*, *ness*, *hood*, and the like in English, are employed in the same manner, in the same relative place, and for the same purpose, as the generic noun in Greek. As *καλ*, a quality found in many things, comes to de-

note an individual by the annexation of *ος*, a *man*, to it; so *quantus* becomes *quantitas*; *similis*, *similitudo*; *chaste*, *chastity*; *good*, *goodness*; *man*, *manhood*. The nature of these latter terminations, without a knowledge of the Saxon and Celtic languages, it is impossible to trace. There is no reason to suppose that they necessarily classified universal terms under the heads of gender; and perhaps they served to form some more subordinate division, as the feminine termination in Greek is used with the article to denote a particular science, or virtue, as species of feminine things, generally recognised and familiar.

But the principle of formation is evidently the same; and no difficulty can arise from the variety of terminations in the Greek noun, whether *ος*, *ης*, *ων*, *ως*, *ευς*, *ις*, *ι*, *ης*, *ης*, or *α*, since all these are reducible to primitive forms of the same generic or pronominal substantive. These conjectures, if correct, will assign the philosophical cause of the general agreement in combination between the substantive and adjective, in gender and number, and their universal agreement in case. Since the sign of the main object described enters necessarily, from the structure of the language, into every member of the description; and as all these members are simultaneously coexistent in it, it will appear in each under the same form and position, and be

placed in the same case. But as the associations which influence the designation of gender and number may vary in a moment, in these the agreement is sometimes interrupted; masculine adjectives being connected with neuter nouns, and singular nouns with plural adjectives. The same principle will also remove the necessity of considering those numerous expressions as elliptical in which the adjective occurs alone, or merely coupled with the article. The termination which denotes the gender being in fact if not a substantive, at least the sign of that abstract substantive for which, in English, we employ the word *thing*, and being already included in the same term with the adjective quality. It is quite as dangerous to trust a grammarian with an ellipsis, as a stranger with the power of filling up blank drafts, or a rhetorician with rhetorical figures and poetical licenses. And it would confer a great benefit on all young students if a short piece of composition were shown them in which advantage was taken of all these imaginary forms, and their consequent absurdity demonstrated. In the infancy then of the Greek language, and probably of every language, the same primitive sound performed the reciprocal duties of adjective and substantive. In the English extensive traces of this structure still remain; but in Greek they are nearly obli-

terated: and a line of demarcation has been drawn between the two, which in many cases it is impossible to pass. A tendency to a similar discrimination is visible in our own tongue: and the mode in which it is effected is well deserving consideration. By simply casting the eye over the pages of a Lexicon, even the most moderate scholar will intuitively class the nouns which occur as substantives or adjectives. Some he will be assured are never employed as adjectives, others never as substantives; and the terminations will serve as his guides. The inflections, therefore, of the primary idea, are the instruments by which this distinction has been effected. And they have effected it by means of the additional ideas denoted by them; and which, by their very essence, erect the elements to which they are annexed into independent nouns, or reduce them into epithets.

The elements which inflect the radical so as to form a necessary substantive are μ , σ , and τ . They constitute very prominent and important features in the Greek vocabulary, and their general significations are familiar to every student. The words in which they occur are usually supposed to be derived from the preterperfect passive of the verb; but it would perhaps be more correct to consider the two as collateral stalks from the same root. Each

involves certain ideas which may be termed verbal, but the latter contain some which are not included in the former, and the addition of which in the participle of the preterperfect enables the noun to reappear as an adjective. *ποίημα* and *πεποιημένον* are two very distinct words. The former must always be a substantive from the notion implied in its penultimate *μ*: the latter contains the same ideas precisely, but something else besides, indicated by the reduplication and the termination *ενος*; and this termination enables the idea conveyed in *ποίημα* to become attributive.

This will become very obvious if we consider that a substantive word expresses any idea or number of ideas, which, either by perception or abstraction, we insulate and detach; that it does this by the sign of one single quality contained in that number (for in compound substantives the initial elements, though united in the same word, are evidently as much adjectives as if separately marked by the generic inflection), and that this quality or attribute, whether generic or any other, naturally infers the existence of some substratum which supports it; since, from our incapacity of seeing into solids, the frequent change of external shape and colour in objects whose materials are yet unaltered, and, in fact, from the very relation which exists between the

sentient substance of our mind and its states and objects of perception, qualities are to us as so many coats or coverings spread over some supporting material, which we can only suppose to exist, but can never perceive; and which stands in the same relation to the qualities which invest it, as canvass to paint, or a table to its covering

To trace minutely the origin of this universally received notion is not necessary. But it is evidently an inference drawn from analogous perceptions, and not a matter of fact proposition. It is obvious, however, that a word to indicate this substance, or matter, or *ὑλη*, divested as it is in our minds of all qualities, must be divested of all qualities itself. And the difficulty, if not impossibility of framing such a word, induced the Greeks and others to indicate its existence only by attributes as abstract as possible, though by no means so abstract as was required—those namely of gender. Still the union of the particular quality with the general quality of gender, served but as a sign for the substance in which they were supposed to exist. The word which contained them remained essentially an adjective, and became a substantive solely by its accidental appropriation. How then was the essential character of a substantive given to an attributive word?

It is quite obvious that this can be done

solely by abstracting the quality; that is, by placing it in any light in which it must at least seize the attention apart from the notion of any other substance. And in such a distinct and separate form a quality does appear when we see any change taking place in an object, by the operation of some efficient cause. When we minutely examine the ideas conveyed to the mind by any individual case of action and passion, we shall find that they are all resolvable into the perception of some new quality appearing in a substance; gradually and concomitantly with the presence of some other substance. This quality, by its novelty, irresistibly seizes the attention, detaches itself from the others to which it has just been annexed, assumes a substantive form, and, from the necessary analogy of motion to a definite point, is designated in Greek by the letter μ , which almost invariably possesses this precise signification. And no equally correct and philosophical mode could be devised by which to express an indefinite substance as recipient of some new quality, than by that new quality itself with the additional notion of its recent annexation. In the same manner if we observe the state of our mind when watching a process by which some change is to be effected, that is, some new attribute to be attached to a substance, we may observe, that the attribute

itself exclusively occupies our thoughts, and that there is a perpetual tendency to anticipate it. Expectation precedes reality: and an experimental chemist is always ready to declare that the changes in his liquids have taken place long before they actually occur. And how is this process denoted in Greek? by the sign of the same quality in a substantive form, and inflected by the insertion of the letter σ , which in the verb, and in many other combinations, is demonstrably the index of inceptiveness, of tendency to, of something future and expected. And for the σ in Greek the r is substituted in Latin, when the process of production is described, just as in the inceptive verbs; what is $\sigma\epsilon\iota\omega$ in one language, becomes *rio* in the other. *Natura*, *factura*, *quæstura*, are the analogous forms for $\Gammaέννησις$, $ποίησις$, $ζήτησις$; as *facturio* corresponds to $\ ποιησείω$, and *facturus* to $\ ποιήσων$. Lastly, a similar method was observed in indicating the cause of a change; and the agent was denoted by the sign of the quality produced, inflected by the letter τ , which occurs in the particle $\thetaεν$, and many other words in the signification of motion from a place.

It will readily be allowed, that these conjectures on the precise and original meaning of those nouns which indicate the agent, the action, and the thing done, are very abstract and remote from their present obvious employment.

Their exact accordance, however, with the natural process of the mind, their uniformly substantive character, their subsequent inflection by genders without altering this character, and the abstract character of the thing signified, demonstrated by the universal applicability of the sign, are all strongly conducive to the same result. That the first inflection by μ should be susceptible of three genders, that by τ of two, and that by σ of the feminine only, is perfectly consistent with what might be expected. The result of an action is of course open to any farther notion of activity, passiveness, or neutrality. The agent can never be considered in the contradictory light of a non-agent. And the action in all probability is marked universally by the feminine from the metaphorical notion of production.

These principles might, if pursued farther, supply rules for tracing the gradual ramifications of words in Greek through their several parent stocks. But at present it is sufficient to observe, that the three forms above mentioned are the only essentially necessary substantives in the language ; that all others become so accidentally, by the combination of qualities which infer the material on which they are engrafted. And that these combinations are sometimes expressed at full length, as *ἄνθρωπος*, *a man* ; sometimes formed by an adject-

tive and the article, as τὸ καλόν, sometimes elliptically implied, when the gender has been by use appropriated to particular substantives, as πολιτική, ἀρετή, or ἀνδρεία—but in all of these, whether a noun is understood or not, there is no expression corresponding to the English word *thing*, which constitutes our universal substantive. The termination of the gender and the article, indicate in themselves nothing but qualities, and the substratum is only implied.—In the cases of verbal nouns above mentioned, the genders also represent qualities, but the attribute on which they are grafted is essentially and necessarily a substantive.

Without a minute knowledge of the languages from which the Greek shot out, it is impossible to ascertain with precision the signification of those inflections which distinguish the varieties of adjectives. Whether the cases are formed by the addition of any extraneous element to the radical term, or merely by a change of pronunciation, may perhaps be doubted. But with respect to the penultimate inflections of adjectives the question is hardly admissible, and we may feel assured, that if the same process was pursued in classical philology which has been applied by Horne Tooke to English etymology, the result would be in the same manner a still more minute analysis of forms apparently most

simple. *A priori* reasoning is in this case very fallacious, for the modifications of which an attribute is susceptible, seem to be limited by no natural principles. And the frequent substitution of one mode for another, whether adopted for the preservation of euphony, or suggested by existing affinities, leaves us without any fixed standard to apply as a test to conjectures. An hypothesis therefore can do little more than attempt a rough classification of adjectives under a few general heads, without presuming an exact conformity in their various uses.

First then we may describe objects either by their positive or negative qualities—and the latter class of terms are used in two senses, to express sometimes the absence of a quality, sometimes the presence of an opposite. In the former sense it is evident, that they must always maintain an attributive form, and be combined with some substantive either expressed or implied, since negation abstractedly can never act as real existence.

Positive qualities may be subdivided into those in which existence only, and those in which motion is implied. The latter class comprehending all verbal adjectives.—These again are either active or passive, and the active either transitive or intransitive. And as action which passes on to some subject termi-

nates either in a mere affection of it, or in production, the Greeks appear to designate the former case by the termination *ρος*, the latter by *μων*—βλάβερος, *a man acting mischievously*; φοβερός, *a man causing flight*; λιμηρός, *causing hunger*; δολερός, *working treacherously*: but γνώμων, *producing*; γνώμῃ—φράδμων, *producing reasons*; or φρα—ἐλεήμων, *producing pity*. The termination *ικος*, appears also to be employed occasionally in an active but intransitive sense, to signify a tendency to an action or state; just as we employ the word *like* in English.—But its verbal nature seems to depend not upon itself but on the word to which it is subjoined.

Of passive verbal adjectives there are three obvious terminations *τος*, *τεος*, and *σιμος*.—The first applied to the subject of an action finished, the last to a subject capable of being acted on, and the intermediate *τεος* conveying the notion of duty—corresponding respectively to the *tus*, *bilis*, and *ndus*, of the Latin language. But the active and passive senses are so frequently exchanged, that the line of distinction cannot be drawn with any accuracy.

Another class of words, essentially adjectives, are those which are employed as substitutes for second appended nouns in the genitive or dative case. And they seem divisible into two heads, according as they are employed for the one or the other. The termination *ινος* appa-

rently corresponding with the former, and that of *ιος* with the latter—*ῥόδινον ἔλαιον*, naturally implies oil made *of*, or *from* roses; *ρόδεία ταινία*, a fillet made *in* roses.—And thus perhaps *ιος* comes to denote the attribute of place and also of time; *χαράδριος, ὄρνις* a bird *in*, or *inhabiting* a torrent; *τριτῆος τεταρταῖος*, *in* or *on* the third or fourth day.

The last class which may be mentioned, are those which annex to the quality some index of its relative quantity.

Where the existence of the quality merely in a slight degree is expressed, in English by the termination *y*, or in vulgar language *ish*, as *fiery*, *handsomish*, *reddish*, *watery*, the Greeks seem to employ *ιης* and *εος*—where its existence in a great and generally offensive degree is to be marked, as the Latins used *osus* the Greeks have recourse to *ωδης*—where the standard of comparison is a number of individuals, the penultimate is distinguished either by a reduplication, or a combination of consonants which arrest the pronunciation.—And that this is a perfectly natural mode of expressing greatness of degree, is evident from its perpetual employment by ignorant people and children; who either repeat the word, or lay an emphasis on its penultimate, whenever such a notion is to be conveyed.

And lastly, if the standard is a single unit, the particle *τερ* is introduced, or the word is in-

flected in *ων*.—This latter termination is probably Oriental, and the former Celtic. Of *τερ*, which occurs in *ἑτερος*, and in many words of northern origin, the signification of difference seems obvious—and probably it might be traced into the numerals with the same sense to direct its application. It is evident that our perception of equality, like that of similarity, is obtained by a very complex mental process: that is, by finding no link deficient in a chain of anticipated ideas, which we have previously acquired by experience. In the case of similarity the links appear to be severally different; in that of equality they are repetitions of the same primary perception.—One house is like another when the majority of ideas called up by each are respectively the same—a line is equal to a line, when the number of sensations produced by the muscular action of the eye in traversing them is checked in each at the same point; and as these sensations are very slight, and cannot accurately be marked and retained in the memory, hence it is scarcely possible to attain a notion of equality without bringing the two lines into a close parallel.—In the case also of simple qualities, as tastes, smells, colours, and the like, the perception of equality in degree is only possible when either to the senses or the memory the two sensations are brought close together; and the transition

from one to the other is marked only by a difference in place or time. If no such difference exists, the several perceptions melt into one. An increase, however, or diminution of degree, instantly constitutes a difference, in the same manner as any two perceptions, however dissimilar, are distinguished in the mind; that is, by breaking and checking the associations.—And hence the propriety of marking such a change of degree by the sign of difference attached to the index of the quality which exists positively in both units. This also may explain the use of the comparative degree with the genitive case in Greek, and the adjective in Latin—since the transition from the first perception to the second, would be marked exactly in the same manner as motion from any one place to another. And the distinction is still farther marked by the particle η , which answers the same purpose as the English *or*, and seems to draw a line of demarcation between the two objects divided by it. A vulgarism in the English language is very analogous to this use of η ,—*this man is better nor he*, is not an uncommon provincial expression.—The phrases $\dot{\iota}\sigma\omicron\varsigma\ \kappa\alpha\iota$, *æquè, ac*, and the like, are to be explained in the same manner; by the tendency which the mind has in the case of equality to run the two perceptions into one.

Two phenomena seem worthy of attention in the use of the comparative degree.

First, the absence in very many languages, perhaps in all, of any peculiar inflection to denote diminution in degree, as well as increase; and secondly, the essential character of attributiveness which the comparative bears.

The first may perhaps be accounted for by the natural tendency of the mind to fix and dwell upon the object which produces the strongest impression; and consequently to make it the first term in the enunciation of the comparison.

The second evidently arises from the fact, that although a combination of qualities, or even a single quality, as in the designation of the Deity by the term Good, may be sufficient to mark out a substantive to which they are exclusively appropriate, no such accurate designation can be performed by a word which essentially presupposes the existence of the same qualities in other objects—unless those objects were confined to two, and the term of comparison marked the increase of degree instead of merely distinction. Neither of which suppositions exists in reality.

Under the head of substantives and adjectives are evidently to be ranged two classes of terms usually described as adverbs and pronouns.

Of the adverb it is obvious, that it is the adjective of the adjective; and is employed to express any modification in the quality of the substantive. Hence it occurs principally in words descriptive of magnitude or degree.—And in English it is possessed of a peculiar termination, *ly*, which is usually supposed to be a corruption from *like*. In Greek it appears generally to be the case of an adjective—the dative when the first quality is supposed to be contained in the second; just as substances in ordinary languages are said to be contained in figure, and any object to be comprised and surrounded as it were by the quality which appears on its superficies—the accusative, probably in its old termination *ως*, and sometimes also in the singular, when the model or fashion of the action or affection is considered—*after such a pattern, according to such a method*, a signification which is inherent in the accusative, and requires no ellipsis of a preposition to be supplied. The neuter plural of the adjective, which is sometimes termed an adverb, is perhaps universally to be reduced under the ordinary principles of grammatical arrangement, as a noun with the substantive suppressed. And the same observations may be applied to many of the adverbial inflections in the Latin language. That the adverb, properly so called, as marking an attribute of an attribute, must be

originally an adjective, is obvious from its very nature. And if this proper and peculiar sense of the word be adhered to, we must at once exclude from the class to which it is applied, every term which is not reducible to such an origin; and either leave the infinite number of signs, whose etymology is unknown, in a heap by themselves, with an acknowledgement of our ignorance, or bring them back by careful inquiry into their proper places as substantives, verbs, participles, pronouns, or which is more common, combinations of several of these terms.

The next element of language to be examined, is the pronoun; and there is no one more interesting and curious, both from its own metaphysical character, and the accurate analogy which on this point runs through every variety of dialect.

It is perfectly evident, that all our perceptions are conversant with individuals; and it may also be assumed, that when we reason with abstract qualities, though the signs of them are applicable to classes of things, in reality our notions are still confined to the individual quality. As these individuals resemble one another in many points, it is necessary to have the means of distinguishing them; that is, of fixing on the unit to which attention is to be directed, and calling the mind of the observer from all

others of the same class. Either one circumstance, or a combination of circumstances, is therefore to be selected, which is appropriate and peculiar to it, and constitutes its difference. The selection of this difference, and the extraction of what is logically termed the essence of a compound substance, is the result of a very long, complicated, and ingenious process of reasoning, in nine hundred cases out of a thousand. In many it is utterly impossible. And if the constitution of things did not supply us with the means of obtaining external differences by which to mark out individuals, instead of analyzing their intrinsic elements, we should soon be reduced to extreme perplexity and ignorance. Place, therefore, is the natural, obvious, and general mode of distinguishing individuals; and accordingly we find it employed every day, where no single and distinct sign has been previously appropriated: and nowhere is its usage more conspicuous than in the original names of persons and families in our own language. It is also obvious, that we require these differences of place for the purpose of communication only. They are the external aids by which we draw the attention of others to a point on which our own attention is already fixed. And lastly, it is clear that the place or second sign which we select, must be known and permanent; and that it may be

assumed either within ourselves, or external to ourselves. The tower of London, Demosthenes the Athenian, the tree on the lake, are instances of the second kind. And the former kind is exhibited in the pronouns.

Now, as in every communication there must be at least two individuals, and individuals of the same species, it will be necessary to distinguish them; that is, as before observed, the speaker must have some means of fixing the attention of the hearer on the one which he wishes to designate. Any description of its qualities is perfectly useless, since the object itself is placed before the senses. A single gesture, or motion of the hand towards the point to be specified, would be the instinctive and easy method. That such gestures are perfectly natural, is obvious from our frequent employment of them. We have an instinctive tendency to touch every thing which occupies our senses. A child grasps at every object of sight. A clown begins to handle every thing within his reach. And if such familiarity was not checked by the decorum of society, we should seize by the buttonhole, or clap upon the back, every person to whom we addressed ourselves, just as we put our hands to our breast when speaking of ourselves, or point to our own bodies when prohibited from speaking. No illustration is necessary to show that a

motion of the hand to our own body is instinctive and natural when speaking of ourselves; and a motion of the same hand from our body when our attention is directed to a person addressed. But motion, and muscular motion especially, affects the voice. And certain modifications of sound respectively accompany gestures, as necessarily and universally as they are attached to the sensations of pleasure and pain. The pantomime of the deaf and dumb will show at once that the organs of speech are moulded differently when the arm is drawn to, and thrown from the body. And we may observe the same fact in ourselves, when we describe any action which admits of these gestures being employed with sufficient violence to mark the distinction. That the letter μ , which enters largely into the first person, is descriptive of a point to which motion is directed, and the letter σ of motion in progress, is evident from the whole structure of the Greek language. The frequent confusion which occurs there between the elementary signs of the second and third person, that is, between σ , and τ , is also perfectly natural on this hypothesis, since very little distinction of gesture is perceptible when pointing to an object external to ourselves, whether it be an individual addressed, or a third separate substance. That the notions of agency and passiveness are not the primary

significations of the pronouns, as Gebelin supposes, is evident from their frequent intermixture in the formation of the verb. That something very abstract, and of universal applicability was intended, is clear from the absence even of generic distinctions in the signs of the first and second person. And it is also obvious in what manner modifications of motion, ideas of action and passion, and numerical symbols, would naturally be expressed by similar elements with the pronouns of the first, second, and third person. If these pronouns were originally formed in the manner presupposed (and the exact coincidence of these facts with the hypothesis at least renders it probable), it might be a subject of curiosity to inquire by what analogy these pronouns in so many languages are irregularly formed; and by what laws they became in Greek and Latin the basis of inflection in the cases, and are still inflected in our own and other tongues, when all other nouns remain unchanged? But without a very extensive acquaintance with other languages, the search would be impracticable.

The pronouns, therefore, of the first and second person, were signs which severally marked the individual speaker, and the one addressed; and were equivalent to, and coincident with certain gestures which designated the place of the person specified. But as in all cases of

communication, two points at the least are fixed and known, we may employ them as local marks to distinguish any units which are external to them. And as all gestures which indicate place are made by the arms, and their number and position divide the whole field of vision clearly into two portions, we find that there are two pronouns in language, *this* and *that*, οὗτος and ἐκεῖνος, *hic* and *ille*, to designate an individual by its position relatively to ourselves. To these, the Latins have added *iste*, to mark locality in relation to the second person, and οὗτος in Greek, as opposed to σὺ, sometimes seems to bear the same meaning.

It need not be observed that ἐγὼ and σὺ are necessarily substantives, from their being severally applicable to one individual. Whereas οὗτος and ἐκεῖνος are either adjectives or substantives, according to circumstances—substantives, when the union of the locality and the gender are sufficient to mark out the individual—adjectives, when some other attribute requires to be annexed. And hence many differences between the Greek and English idioms; in the latter of which the pronoun *this* or *that* can rarely be a substantive, from its abstract and simply local character.

When an individual has once been fixed and described, it is frequently requisite to recall the attention of the hearer to it. And as the

repetition of the description would be tedious and unnecessary, it is superseded by the employment of a sign which suggests it again to the mind. To do this, such a sign must necessarily be very abstract, since it is to be applicable to an infinite variety of subjects ; and yet not so abstract as to embarrass the hearer in throwing him back upon former associations. And since the process is to be performed by association, it is evident that the sign must be something previously connected with the individual alluded to. It must be part of some former chain of ideas, or by the laws of our mind it never could serve to recall that chain. A sign thus constituted is found in all languages, in the words which indicate gender. *He, she, and it, is, ea, id, %s, %, %s*, are signs perfectly indistinct in themselves, but which nevertheless are known to indicate some one individual in the speaker's mind, because words are never used without some such prototype. The hearer is immediately thrown upon his search to find out the object intended. That it is something known to himself is certain, since we never voluntarily employ words incapable of suggesting the ideas required. That it has been lately subjected to his observation, is natural ; since otherwise the speaker would not anticipate its recurrence. And the index of the gender, while it limits the field of search,

serves also to recall the notions with which it was previously connected. The same distinction which was made between the adjective and substantive use of *ὅυτος* and *ἐκεῖνος*, may be applied to the pronoun *ὅς*. In Homer, in the dialogues of Plato, and in many other Greek works, it is a substantive. In its adjective form it generally appears as the article. Sometimes the individual has been already described ; and its use is purely relative. Sometimes it has been presented to the speaker only, and a fuller definition is appended to it for the benefit of the hearer. Sometimes no such definition is added, and it remains as *τις*, leaving on the hearer an impression that some one individual was intended, without any knowledge of the one specified. Hence the use of *τις* as an interrogative. A question, in fact, being merely the expression of an opinion in a doubtful form. The principal differences between the Greek and English idioms, in the use of the article, arise from the generic character of the Greek pronoun, and the absence of such a character in the English *the*. Hence the article in Greek may be used with prepositions, with adverbs, with participles, and with adjectives ; where, in English, no such phrase is admissible, except under peculiar circumstances, where the nature of the adjunct acts as the generic inflections. Thus we speak of *the good*, *the*

vicious, the indolent; but never of *the wooden, the watery, or the metallic*. The nature of the quality in the former case restricts the application of the predicate, in the latter not.

To enter however into an analysis of all the different usages of this important word would be vain without adducing examples, and almost superfluous after the minute examination which it has received from others. Its nature as connected with the structure of the language is all that is here alluded to, and in this it is curious to observe its analogous formation from the pronoun in such a number of languages.

Of the relative $\tau\epsilon$ it is scarcely necessary to observe, that it is the same pronoun. And as in Latin the relative *qui* is perhaps formed from $\kappa\alpha\iota$, and *is*; so in Greek the connecting particle $\tau\epsilon$ is found attached to $\tau\epsilon$, and other pronouns in the Homeric dialect, though subsequently it was dropped. And here also there is a close analogy to be observed in the English language, in the evident formation of *who* from *he*.—The pronominal forms in fact, from their very nature, are those which have run out into every variety of dialect with less alteration in their structure than any other words, and they are of themselves a sufficient proof of the identity of the source from which language originally sprung.

As the pronoun $\tau\epsilon$ is in itself a relative, that

is, as it signifies something which has been previously mentioned or suggested; so it enters into many relative adjectives. Its dative case τοι, seems to be the origin of τοις, in perfect consistency with the general use of that case to indicate the standard of comparison. From the same element, with σ, inserted as the sign of number, τίσος appears to have sprung. Though perhaps both τίσος and ἴσος may be merely a reduplication of the same pronoun to express identity. And from the genitive of τίσος, τοσοῦτος probably arose, in which perhaps the genitive of an adjective of number serves as the measure of quantity, from the close analogy between the two notions. The immense number of particles, which in combination with prepositions and conjunctions it has thrown off under various forms, deserve well the attention of the philologist.—They have created no little confusion in the principles of Greek composition, by giving shelter to technical explanations of difficulties, which are only supposed to be explained because we are ignorant of the means resorted to. It is considered a satisfactory solution of a phrase in which the Latin subjunctive occurs, to say that it is governed by *ut*. Whereas, as Horne Tooke has clearly shown, *ut* is merely the pronoun ὅτι. Ἵνα, ὅφρα, ὥς, perhaps the hypothetical particle εἰ, certainly ἐπεὶ, ἐκεί, and many others, are nothing but the pronoun

in particular cases and combinations : and can no more govern a subjunctive mood, than the original noun itself. $\pi\iota\varsigma$ appears to have been the adjective form of $\tau\iota\varsigma$ —and the numerous compounds of ς and $\tau\iota\varsigma$, or what are usually called the definite and indefinite pronouns, seem to be employed only as more precise substitutes for the original $\tau\iota\varsigma$, to mark out a particular individual, but to indicate at the same time that he had not been previously described. From ς also is formed $\alpha\upsilon\tau\acute{\omicron}\varsigma$, or in a literal translation, *he again*; from the particle $\alpha\upsilon$. — $\alpha\upsilon\tau\acute{\omicron}\varsigma$, consequently, is used sometimes as the mere pronoun—but more frequently the repetition of the individual serves to throw the mind back upon it when passing on to others of the same species, and thus distinguishes and separates it from the rest. Hence a man is said to act $\alpha\upsilon\tau\acute{\omicron}\varsigma$, when he does it by himself, without assistance; or spontaneously, without compulsion. So also when an action is unproductive of any results, $\alpha\upsilon\tau\acute{\omicron}\varsigma$ is employed; and the addition of the article serves to indicate identity, on the same principle as A is said to be the image of B, or, when the likeness is still more strong, to be B himself.

The most important part, however, of the Greek language is the verb, and its consideration necessarily involves an inquiry into the nature of those complex forms of speech which

are denominated propositions. The following conjectures are hazarded with great diffidence, but may perhaps throw light on the subject. It does not appear then that a logical proposition has anything to do with the comparison of ideas.—It asserts the connection of two ideas either simple or complex, but not their similarity or difference.—Either the term comparison does not mean here what it does elsewhere, or it is most improperly applied.—To suppose that the assertion *Cæsar is dead*, infers any resemblance between Cæsar and Death, is a notion too absurd to be refuted. When we pronounce upon the truth or falsehood of a statement, then, indeed, there is a comparison implied, between the ideas suggested by the words and those excited by the external object,—and a statement is true when the two trains coincide, and false when they differ. But in itself a logical proposition expresses simply the connection of two ideas in the mind, or two qualities in a subject.

When these propositions are expressed in words, and not before, it is very important to observe that they branch out into two kinds, one in which the second term, or predicate, is included in the sign which stands for the subject, the other where it is merely connected.—The first class are necessary, the second contingent.—And as no one simple state of mind

can include another, and all our perceptions when analyzed are simple, it is evident, that to us there can be no necessary proposition respecting matters of fact, no proposition that is, which we may not conceive to be otherwise.—And it is also obvious, that whenever the predicate is included in the subject, this inclusion takes place by virtue of the signs which we employ. The word which stands as the subject indicating a number of ideas, one of which separately and under a different symbol is placed in the predicate. Again, as demonstration is nothing but the showing that the two terms of a proposition are necessarily blended, that is, that the second cannot be detached from the first; and as this takes place only where the hypothesis of language has included one in the other, it is most important to remember that we can have no demonstration except by words, and of words.—And it is equally important to see, that the impossibility of doubt in necessary matter, and its possibility in contingent matter, arises from the physical formation of our minds, which cannot be in two different states at the same moment; though they have the power of checking themselves in following up a train of perceptions, and breaking off any one link from another.—That very many necessary or identical propositions do not appear so to ourselves is very certain. And in these cases

the difference in the signs which we employ, acts in the same manner as a difference in the ideas themselves.—But it may safely be asserted, that wherever a proposition is presented to us which we cannot conceive to be otherwise, its predicate has already been included in the subject. Its validity depends upon hypothesis : and its inference is purely verbal.—The very momentous and practical consequences which flow from this principle, if correct, are well worthy of serious consideration. At present it is merely stated in reference to certain grammatical constructions.

The difference between the formation of a complex substantive, consisting of many connected perceptions, and the enunciation of a proposition, is simply this ; that in the latter case the mind breaks off one link in the analysis, and fixes upon it in a separate form.—And the principles which influence us in this selection, are the same which draw and attract our attention to any quality or substance amidst a group.

These principles are three, novelty, pleasure, and pain.—And hence we do not express our connected perceptions in the shape of propositions, except where the predicate or quality fixed on is new, or agreeable, or painful. The exclamations of a solitary individual talking to himself, are confined to these three heads.—

Hence it is that we never take the trouble to enunciate propositions which are self-evident, or obviously identical; or which are known to the hearer. Hence it is that a traveller describes the objects which he sees, solely in relation to his own feelings of surprise or satisfaction. And the want of interest sometimes perceptible in narratives, and of clearness in the arguments of the most learned and gifted men, arises from the suppression of many propositions which are too familiar to be noticed by the speaker, though perhaps unknown to the hearer. The illustration of the fact may be left to the personal observation of every one.

As the predicate then, or quality which arrests the attention, is thus detached from the subject or group with which it is perceived to be connected, the separation is marked by a break in the sense and the language, that is, by the apodosis. But as such a break might seem to imply two distinct and unconnected perceptions, it would be perfectly natural, when the second term was enunciated, to subjoin some element which would refer to the former,—and would in fact repeat it. Such an element is found in the pronoun.—A savage expressing his perceptions does naturally talk in this manner—“sun, it, rising;” “this wine, it sweet;” “Sambo, me good;” or, “man, he wicked.”—And this appears to be the explanation of that

curious phenomenon in the Greek language, the formation of the verb from the attribute and pronoun; a fact which having been led to anticipate *a priori*, I have since found fully developed in the celebrated work of Valckenaer. In addition to many other difficulties explained by this analysis of the verb, it may be worth while to notice the natural formation of the passive voice from the accusative of the pronoun; the various significations of the middle voice, according as the termination stands for the dative or accusative; the analogy between the imperative of the Greek and those English vulgarisms, in which the word *it* is attached even to intransitive verbs; the identity of the verbs in μ , and the Latin forms with those in ω ; the formation of inflections in the verb, to designate number and person, from inflections previously existing in the pronoun; and the falsity of that hypothesis which makes verbs impersonal, or conceives that in any case an ellipsis of the nominative or subject could exist, such an ellipsis being totally opposed to all the principles of human reason.

From the explanation here attempted of the formation of propositions, it is easy to see the mode in which the verb became susceptible of various accidental modifications. In its original and essential form it is nothing but an attribute coupled with the pronoun. When the person

indicated by the pronoun has been previously designated, it forms in itself a whole and perfect proposition. When this has not been done, a fuller description is subjoined in the subject or nominative case. And even the position of the pronoun at the end of the attribute, as if its annexation were an afterthought, seems illustrative of the fact. In all this there is no necessary notion of time, of action, of passion, or even of being; except inasmuch as the existence both of the subject and predicate, at least in the mind of the speaker, is essentially comprised in the enunciation of the terms. The verb of being is in no way necessary to a proposition. It is perfectly superfluous, as expressive of existence; and perfectly accidental, as indicative of time: and however abstract its meaning is at present, originally it must have been as complex as any other verb at present existing. And yet that the notions of time, of agency and of passiveness, and many other modes of being, are attached to the verb, is indisputable. And the solution of this phenomenon lies in the nature of the principles which influence our selection of the predicate, by fixing our attention on some one quality rather than on others. A fact, that is, a conjunction of two perceptions, must be, in some degree, new in order to surprise or affect us. The second term must be one unexpected; con-

sequently it must be capable of existing separately from the subject. The subject must have before been perceived without it; and thus the notion of time is immediately conveyed. So also action and passion are very generally indicated by the verb; because motion of any kind, change of any kind, naturally arrests the attention. To remark that the fields were green in the middle of summer would be ridiculous; but every one makes the statement at the beginning of spring. No one but an idiot would think it necessary to inform another that the Alps were in the same place as they were a thousand years ago; but of a body capable of motion, this might naturally be thought worthy of mention. The observations made by a child, or indeed by any one, when surveying a landscape or travelling, would form the best illustration of these principles. And since every fact or conjunction may ultimately be conceived capable of separation (for even identical propositions rest upon hypotheses and arbitrary assumptions, which may be denied if we choose), it is perfectly natural to mark the time at which they appear, and to make a distinction between the state of a thing at the present moment, and the state which it either has been in before, or may be in hereafter. The precise moment at which a king dies, or an earthquake occurs, is noted down upon the same principle. And

thus even necessary propositions are expressed with reference to the present time only, though the connection appears indissoluble when the hypothesis, which supports it, is allowed.

It is also perfectly natural that the notion of time should be attached to the predicate or verb, because it is this which is conceived to be the variable term ; and which suggests the notion itself. Hence in the Greek, the Latin, and the modern languages of Europe (for it is not safe to extend the observation beyond the little field which is open to our own personal knowledge), the verb is inflected to mark the time. And what is very well worth notice, it is generally inflected so as to make but two divisions, the past and the present. And the future is either formed by the insertion of some other verb, or is evidently to be ranged under the present ; both from its uses, the nature of our perceptions, and the analogous character of its inflections—*I strike, I struck, I will strike*, τυπτω, ἔτυπτον, τυψω. The susceptibility of a quality, or tendency to it, seems to be spoken of as a quality existing at present ; and, *I am going to strike*, is the literal translation of τυψω ; the letter σ answering the same purpose as the *je vais* of the French, and our own verb of motion. And if we consider what is meant by the time of an action, it may perhaps lead to a conjecture respecting the nature of the Greek aug-

ment. As we mark the place of an object in space by the object to which it adjoins, so we mark the place of a fact in the order of time by the fact or perceptions which are immediately connected with it. We cannot indeed date as present time a perception which is actually present to the mind, because it is itself the standard of all other time. But we do say that such perceptions take place in present time as closely follow on some one other perception, which recurring again and again at very little intervals, seems to be, in some degree, a fixed and permanent mark. This mark, however, is a floating point, and varies every moment in its relative position. And as the enunciation of our perceptions implies their present existence in the mind, it is perfectly unnecessary to subjoin the date, when such present existence is intended. But a fact is said to take place in past time, when it was closely conjoined with some one other fact not at present existing. In this case the second fact is a fixed and immutable point, known and determinate, but described or not, according to circumstances. And such a point might very naturally be marked by the old pronoun of the third person, ϵ , which indicates some object or conjunction not now present, but known and consequently past. Whether the hypothesis is worth notice may be left for the consideration

of others. But it is curious that the Latins who want the augment, want also the definite article, which came from the pronoun; and employ the pronoun itself but rarely and reluctantly.

The primary division then of the inflections of the Greek verb, would naturally be formed from present and past time. But under each of these heads occur several other inflections or tenses, which are wanting in our own and in some other languages; and it is important to settle their precise signification and number. And this may perhaps be done by referring to the respective analogies of the Greek adjectives and the Greek cases.

For if the verb is merely an adjective, or attribute in a different combination, it will naturally be capable of the same modification. Thus both the verb and the adjective may be classed under the three heads of active, passive, and neuter. And the subordinative modes of action or production; the relative connection between the quality and the subject; the tendency to a state, and the repeated perception of a quality, are marked in each by distinct and frequently similar inflections—thus $\epsilon\omega$ seems to express merely the existence of the quality— ω an action— $\zeta\omega$, $\sigma\omega$, and $\iota\omega$, production as exhibited severally in the creation of a substance, or of a quality; and of a quality accordingly as

it is intimately or superficially connected with the subject—the termination $\alpha\theta\omega$ would seem analogous to that of the superlative degree, and might bear perhaps a similar sense— $\sigma\epsilon\iota\omega$ indicates the tendency, and $\sigma\kappa\omega$ the same tendency in an incipient state—and very nearly the same notions are to be found in the inflections of the adjectives.

A different classification of adjectives may therefore supply us an analogous distribution of the tenses, and this has been attempted already. For we may describe an object by its negative or positive qualities, and its positive qualities may be either such as really exist, or such as are capable of existing—and those which really exist, may be subdivided into absolute and relative, accordingly as they are considered in themselves, or with reference to a prior state of the object. We may describe the night as starless, or starry, or clouded, or terrible—a fruit as unripe, or ripe, or ripened, or edible—and a tree as lifeless, or green, or blighted, or shady. It need scarcely be observed that the negation of a quality naturally implies its supposed prior connection, either in the same or a similar object; and thus we may describe an object, either by a quality which it no longer possesses, which is past and gone, or by a quality which it possesses absolutely, or by one which has been superinduced on it, or

by one which it is capable of possessing or producing. And when we turn to the Greek tenses, we shall find these four divisions accurately marked by distinct inflections; and where the nature of things permits, a perfect set of inflections severally assigned both to past time and to present. The analogy of the Greek cases would lead to a similar conclusion. For the recurrence of the mind to a quality no longer perceived in an object, its perception of an existing quality, and its anticipation of one to come, are three operations of the mind precisely similar to those by which an object is perceived in its unity and totality, in its extension, and in its prospective position. On a quality no longer perceived, we cast as it were but one glance, and no more—on one which is obvious to our senses, we dwell with reiterated perceptions—on one which is to come, we look forward as through a vista, with a sort of suspense and pause, anticipating its appearance. And these are the notions which have been assigned to the Greek cases, and which at least will serve to explain all the curious phenomena connected with them. The observation of the student will be sufficient to show him that some such analogy does exist between the tenses and the cases from some of their respective combinations in instances of dates. The imperfect tenses running with the accusative, and

the perfect with the genitive. And, as before observed, it becomes the more probable when we find that in languages which possess cases, these tenses are also found, and that in others they are both wanting together.

It is needless to illustrate the identity of those mental operations by which we receive perceptions in the order of time and the order of space. In both cases our states of mind follow one another as the links in a chain, and are susceptible of the same modifications and phases. A notion of time may indeed exist without that of space or extension, but the latter, in the present constitution of our muscular system, cannot be obtained without the former. In themselves, however, they are generated by successive affections of the mind, and involve no essential difference. How it is that there are but three inflections for the cases, and four for the tenses, is evident; since the subdivision of those tenses, which imply the actual existence of qualities as either being or superinduced, has no counterpart in the case of substances.

In applying these observations to the elucidation of the Greek tenses it must be remembered, that the retrospective, existing, and the prospective connection of a quality with an object, necessarily involve some notion of time. The past, the present, and the future, are essentially comprised in the abstract perfectness, im-

perfectness, or inceptiveness of a fact.—And the nature of things in particular instances will prevent the formation of a full and perfect system of the four tenses, described under each head of present and past time. But if we can procure any modification of the verb which expresses a fact with reference only to one time, or rather to no time at all; and if in this mood such a system is fully developed, we may assume it as a legitimate test of the correctness of the hypothesis. Such a mood is found in the infinitive. Whatever be its origin its use is obvious. Conjecture might perhaps suggest its formation from the neuter of the participle—much in the same manner as we form our English expressions, *the doing, the striking, the having fought*. And the other form of our infinitive, consisting of the verb with the particle *to* prefixed, seems rather analogous to the construction of the Latin infinitive from the verb of motion *eo*, than to be, as some suppose, a construction with the Greek article in its original state. A mere fancy, however, of this kind deserves but little attention; although it is certainly curious that the Latin language possesses, like the English, two classes of infinitives—the Sanscrit supines, and its own termination in *re*, and *isse*, the respective formation of which seems perfectly to accord with the origin of ours.

However this may be, the infinitive is evidently a noun, and a noun substantive. It is used when attention is called not so much to the attribute itself, as to its formation or existence. And its very abstract character seems to be the cause of its excluding any generic termination, and consequently being incapable of inflection into cases. As a noun it cannot essentially involve any notion of time; more than the idea of a book, a horse, or a meadow. But it expresses the state of the quality under its four heads, of completion, of incipency, and of existence—and of existence either absolutely in itself, or relatively to some superinducing cause; *τύψαι*, *to finish beating*, a perfect action; *τύπειν*, *to be going to beat*, an inceptive action; *τύπτειν*, *to beat*, an action present, and consequently imperfect; *τετοφέναι*, *to retain the attribute of beating* previously assumed, and consequently to be likewise in an imperfect state. What the infinitive expresses in an abstract form the participle expresses in the concrete, and under the same four heads.—And here also it is evident that the notion of time is merely accidental, since otherwise there would be separate inflections for participles of the past, and participles of the present time, such as we shall find to exist in the indicative and subjunctive moods. The difference between verbal adjectives and participles, evidently lies in the

significations here attributed to the inflections of the tenses.

The next mood in which we may clearly ascertain the meaning of these tenses is the imperative. It is here that many philologists seek for the root of the verb; and although it is perhaps more correct to consider its several shapes as parallel than as derivative formations, it is certain that here we shall naturally find the root of the word in its most compact and abbreviated form. The expression of a command like that of a want, is naturally the mention of the thing wanted—and nothing more.—And since to command a thing which is either past or present is an absurdity, the imperative, if time be looked to, must universally relate to the future. Instead, however, of any future signification being annexed to the tenses in this mood, we find that the only one omitted out of the four to be anticipated, is that which is usually termed the future. There are but three inflections, *τύπτε*, *τύψον*, and *τέτυφε*, *be beating*, *have beaten*, or *finish beating*, and *continue having beaten*, if such a rough translation may be allowed. That the inceptive or imperative of *τύψω* should be omitted is perfectly natural, since we never desire that an object which we want should be removed from us by any interval. If we wished to see a person painting a picture; we should say *γράφε*.

If we wished the picture finished, and the attention of the painter directed to some other object, we should say γράψον. And if we wished to see him precisely at the moment when the colours were wet, and his brush just laid down, we should say γέγραφε. When we proceed to follow up this system into the indicative mood, we find it for the first time branch out into two heads: and the notion of time immediately annexed to it in the shape of the augment.

And we also find that the scheme for present and the scheme for past time, are each defective in one tense. Instead of eight tenses, as we should perhaps anticipate, there are but six in the indicative.

	PRESENT.	PAST.
PERFECT.	—	ἔτυψα.
INCEPTIVE.	τύψω.	—
IMPERFECT, {	ABSOLUTELY. τύπτω.	ἔτυπτον.
	RELATIVELY. τέτυφα.	ἔτετύφειν.

The deficiency of the perfect tense in the present is obviously necessary, since the very notion of completion implies past time.—And the defect of the inceptive tense in the past, may also be accounted for by remembering how little we dwell upon past anticipations unfulfilled.—The tendency of an object to a particular state at the present time makes a great impression on our minds. But afterwards it soon escapes us.

The several significations of these tenses, deducible from their primary meaning, are too well known to require much illustration. The inceptive admits of very few deflections. Of the two present imperfect tenses, *τύπτω* and *τέτυφα*, the former is employed to signify not only the connection of two qualities at the present moment, but from hence their constant connection at any imaginable moment. Hence the use of the present in necessary and identical propositions.—It also signifies continued existence, frequent repetition, and sometimes an ineffectual effort. The reduplication in the present perfect as *τέτυφα*, seems analogous to that of the superlative degree in adjectives; and to denote the continuance of the effect of a past action up to the present time. Since an excess in degree is denoted by the repetition of the primary idea, so any continuity either of duration or extension is perceived in the same manner. The termination in *κ* and *α* naturally connects itself with the formation of our own perfect tense by the verb *have*, and probably was derived from a similar origin. The notion of possession implying previous acquirement; and these two ideas being precisely the signification of the perfect tense.

Of the past tenses, the first aorist signifies in the first place merely a previous connection of the attribute with the subject.—And since such

instances in past time are the basis on which we reason to general coincidences, it implies custom and habit. And the past imperfect tenses are analogous in their uses to the present imperfect.

There seems no reason why in this scheme of tenses any distinction should be made between the aorist, and what some persons have termed the oristic tenses. We may mark out the place of an object either by reference to ourselves or to some other fixed point; or more precisely to both; the book here, the book on the table, or the book here on the table. What our own person is in the order of space, the present moment is in the order of time. We may describe a fact as present or past, or we may add the precise fact with which it was coincident, or concomitant.—Sometimes this fact is expressed, sometimes implied in the context. But its insertion does not appear essentially necessary to any one tense more than to another.

In this scheme it is supposed that the second aorist and second future have no signification different from the first forms of those tenses. Certainly none is perceivable, and it would perhaps be advisable to examine whether or not the other tenses are not severally to be considered as so many distinct roots, and not derivative inflections from each other. The re-

duplication of the *paulo post futurum* in the passive voice, seems to mean the same as the reduplication in the preterperfect and second aorist, viz. the continuance of the effect. And its absence in the active voice is perfectly natural, since no such continuance would be visible in the future conduct of an agent.

It only remains to consider the nature of those forms which are denominated the optative and subjunctive moods. To analyze the subject fully, and illustrate it with examples, would very far exceed the plan of the present sketch.—All that can be done is to propose a few conjectures, which the student himself must confirm or refute.

And first, as we have pursued in other cases the analogy between the noun and the verb, we may recur to it here also.—In English there are no cases and no tenses; in Greek there are both. It was probable that a similar notion was in this instance expressed or omitted. In English there is no distinct inflection to represent the second of two nouns; and no distinct inflection to serve for a subjunctive mood. In the Greek there are. It is therefore not impossible that as the oblique case stands to the nominative, the subjunctive mood may stand to the indicative; that it may represent the second of two facts, as the oblique case represents the second of

two objects: and that as in the one instance the two objects are closely connected to the senses; so in the other the two facts may go hand in hand as cause and effect. The similar nature of the inflection in both deserves to be noticed. Supposing then that the absurd nominal distinction between the optative and subjunctive may be removed, we shall find that when thrown together they furnish us with eight tenses. And these may at a glance be divided according to the scheme before laid down, so as to supply a complete system of perfect, imperfect, and inceptive forms to each of the two divisions of time, the past and the present.

	PAST.		PRESENT.
PERFECT	$\left\{ \begin{array}{l} \text{Τύψαιμι.} \\ \text{Τύφοιμι.} \\ \text{Τύπττοιμι.} \\ \text{Τετύφοιμι.} \end{array} \right.$		$\left\{ \begin{array}{l} \text{Τύψω.} \\ \text{Τύψεια.} \\ \text{Τύπττω.} \\ \text{Τετύφω.} \end{array} \right.$
INCEPTIVE			
IMPERFECT			
Or, in English, he went that he might	$\left\{ \begin{array}{l} \text{Finish striking.} \\ \text{Be about to strike,} \\ \text{Be striking,} \\ \text{Have just struck.} \end{array} \right.$	May	$\left\{ \begin{array}{l} \text{Finish striking.} \\ \text{Be about to strike.} \\ \text{Be striking.} \\ \text{Have just struck.} \end{array} \right.$

And it may be worth observing, that the omission of the augment in this mood is favourable to a previous hypothesis. Since the date of this second fact, if dependent on a former one, must be in all cases future to it, and consequently cannot be definitely marked.

It is evident that to confirm this hypothesis,

would require voluminous illustrations.—And all that can be done must be left to the observation of the student. With respect to the aoristus Æolicus which I have ventured to rank as the subjunctive of the inceptive, or future, such a conjecture appears probable from its form, and as far as the confined reading of a single individual has extended, it is borne out in every instance, and in many is absolutely necessary to preserve the sense. A few observations may be made respecting the use of the subjunctive in itself.

First then, the former fact on which the second expressed in the subjunctive is supposed to depend, is frequently omitted. It is omitted whenever it is not known.—Just as we find the genitive case employed to indicate the part of a whole, the part itself not being expressed from its being unknown. The verb *to happen* may here be introduced, and give the full force of the subjunctive.

Secondly, whenever a number of individuals are capable of the same predicate, and the choice is to fall upon one only, the verb will be put in the subjunctive, because the choice must be determined by some circumstance not yet known.

Thirdly, whenever a case is conceived likely to occur, the verb of the subjunctive will be put in a present tense—but if unlikely, or a fact

which is known not to exist, the verb will appear in a past tense.—The hypothesis will be formed apart from any existing circumstances, and the past time being the only one distinct from the present, and marked by separate inflections, a case not existing will naturally be thrown under it. The same principle acts in English—and it accounts, in both languages, for the expression of wishes not likely to be gratified, in the past tenses of the subjunctive. The common translation of the tenses here considered as past, by the signs *would*, *could*, and *should*, which are themselves the past tenses of *will*, *can*, and *shall*, evinces the analogy.

Fourthly, these wishes will themselves be expressed in the subjunctive, since they are facts which are conceived to depend upon the will or exertions of another.

Fifthly, as a past fact, A, may produce another past fact, B, and also a present fact, C; but a present fact, D, can only produce a present fact, E, (for the future has no inflection), we may see the reason why and how far the principle laid down by Dawes is correct; that a past tense in the first clause requires an optative in the second; and a present in the first, a subjunctive in the second. The real fact is, that a past tense may precede both an optative and a subjunctive, according to circumstances.

But a present tense can only precede a subjunctive, unless another nonexisting hypothesis is understood on which to found an optative, or some idiom of the language accounts for the exception. Let L be the middle letter of the alphabet, and stand for the present moment, dividing time into two portions, E may be the cause of K and also of R, but N can only cause S or T on that side of L.

Sixthly, it is very necessary to fix on the precise fact on which the second is built, and to mark the time which is taken as the standard, particularly with reference to what grammarians term the *oratio obliqua*, so common in the Greek idiom.

And seventhly, it may be worth while nicely to distinguish those cases in which the indicative is admitted into the second clause instead of the subjunctive; and to observe how frequently this takes place in the case of negatives which cannot act, and in apparent effects, which in reality are not effects at all, according to the notion of antecedent and consequent established among the Greeks.

The whole nature, however, of the subjunctive mood, might well deserve a separate discussion. And the present notices can throw but very little light on its complicated and important uses.

After the analysis of the verb into the attri-

bute and pronoun, it is unnecessary to explain the nature of the middle voice, or its various significations. They may all be comprised in the fact that the pronoun is sometimes taken for the accusative, and sometimes for the dative. And the frequent intermixture of tenses which have wrongly been separated from each other under the two distinct heads of active and passive, is easily to be explained in this manner. It would be very desirable to account for the deficiencies in the tenses of particular verbs by looking to their intrinsic nature. Those in the verb *εἶμι* are singular, and deserve attention. And in general they are to be traced not to mere accidental omissions or usages, but to the nature of things and the principles of the human mind.

It only remains for us to take a cursory view of those little words or particles which enter so largely into the Greek language; and which to many appear both insignificant and useless. Even these, however, petty and unmeaning as they seemingly are at present, we may be assured possessed originally some certain and positive signification. They must have been ranked under one of those classes which have before been analyzed. What their etymological origin was it is almost impossible to ascertain, both from the abstractedness of their meaning and the simplicity of their form. And little

more can be done than to throw them into something like order; and form some probable hypothesis on their primary senses, and subsequent deflections.

If we look then to the operations of the human understanding, they may easily be reduced under the following heads. For the mind is either sensible of single distinct perceptions of pleasure or pain, which give birth to interjections, as involuntary and irrational sounds: or it receives from the senses a number of perceptions which it groups together, and anticipates by the law of association, accordingly as they coexist in space or are consecutive in time.

And it need not be observed, that the expression in language of any judgment, or any reasoning, must imply the previous formation of such groups of ideas in the mind. The particles then, if a definition be required, may be considered as words drawn from some other use, and employed analogically to denote certain accidental results of these mental operations. They do not express in their second office any distinct ideas, but are signs of certain states of mind which occur when it is repeating any trains of ideas already associated by experience. And they must originally have stood for tangible and visible objects, and been transferred from thence by some analogy or another,

since A could scarcely explain to B any internal perceptions of his own mind, except by placing before B the same external objects which would act upon others in the same manner as upon himself.

First then, we may express in words either a group of ideas obtained by that process which the logicians term *simple complex apprehension*; or the result of a comparison between two groups or series of perceptions. And in the former case it would seem, that when the mind in forming a complex substantive has previously passed uninterruptedly from one state into another, till all the links in the chain were run out, it acquires a tendency to pass successively from one into another; just as we expect, anticipate, and are ready to fall into the notes of a well-known tune before they are played, are disappointed if it suddenly breaks off, and feel no farther tendency of the kind when it comes to its natural close. This momentum, as it were, which the mind acquires, seems in Greek to be expressed by the word *καὶ*. Of its etymology it would be absurd for any one but a professed linguist to assert anything. The word *quæro* in Latin might seem from its use to be derived from *καὶ*, and an obsolete verb of motion connected with *eo*, *ire*; and to signify a constant progressive advance. But an hypothesis is not worth supporting

which rests on such a slender reed. And we can only say with certainty, that if we could affix to the word with propriety the sense of *go on*, or *advance*, it would explain all the uses of this important particle. *Cicero was eloquent*, καὶ, *a patriot*, καὶ, *a philosopher*. As if the hearer was told to go on, not to consider the series of accumulated qualities to be yet exhausted. From hence it might naturally signify *also*, not only B, but, go on, something beyond this, C *also*. In the same manner it would stand for *even*. He was cruel not only to strangers, but, go on, something farther and beyond, *even* to his own children. So likewise it signifies *immediately*, like the Latin *et* and *atque*. This was done, go on, without any interruption, something else happened. So too its sense of *although*; Demosthenes καίπερ an orator was not courageous—go on, allow, do not hesitate, as you may be inclined to do. And the English *notwithstanding*, expresses precisely the same notion, namely, the absence of an anticipated obstacle to a farther advance. Hence, too, it is employed to mark the concession of a point, which was capable of dispute; and may be translated into English by an emphasis on the verb—if it *be* so, εἰ καὶ ἔστι. And the same radical notion runs into all its uses; as, for instance, in the expression of similarity; its connection of qualities combined in the

same substantive ; of substantives only numerically distinguished from each other ; and sometimes when prefixed to the apodosis of a sentence, especially in the idiom of the Septuagint ; in all of which cases there is an easy transition of the mind through the several ideas specified, from the very first principles of the law of association.

Besides, however, the conjunctive particle *καὶ*, the Greeks possess another, *τε*. And the peculiarities in its use well deserve a minute examination.—

First, it is singular in its position, as subjoined, not prefixed, to the noun.

Secondly, it is curious that when found in combinations with *καὶ*, it invariably occupies the first place, and never the second.

Thirdly, it is connected in a very remarkable manner with the relative pronoun, where it appears to be, what it never assuredly could be, otiose and superfluous.

Fourthly, its use as a conjunctive, even when coupled with other disjunctive particles, is very difficult to explain.

And fifthly, there seems to prevail in it a marked distinction from *καὶ*, in its coupling two equivalent terms, where *καὶ* implies an excess in each progressive step.

Now there can be little doubt that as the Latin *et*, probably from the same root as *εἰτε*,

corresponds with *καί*, so the other conjunction of that language, *que*, is the counterpart of *τε*. But the analogy is much more striking in the second case than in the first.

And if we look to the peculiarities in the use of *τε*, and to the every-day operations of the mind, we may, perhaps venture an hypothesis as to its real nature. Supposing then a person was relating a certain number of facts to an impatient auditor, or at any rate to one whose attention was likely to terminate at each successive link, what would the speaker naturally do? what is it that we all do in such a case?—Simply this—the moment that we come to the close of one fact, we instantly subjoin the words *something else*: we add to it a sign, which, without explaining what is to come, states that something is coming; that something being known and determinate to the speaker; but not rising in importance above the preceding point, or likely, when enunciated, to cause any hesitation in the hearer.

Now it is well known that the old Greek pronoun of the third person was *ζ*, and the more modern form sufficiently accounts for its becoming *τε*. It is also evident that the *κ* derived from the old Greek, is retained in the Latin definite pronoun *quis*, or *quidam*, while the *τ* appears in the Greek *τις*. And *que* is to *quis*, as *τε* to *τις*. And the absence of any such con-

junction in our own language may be easily accounted for by our want of any short pronominal substantive of the same kind. Although our definite article *the* is probably the same word deprived of its gender.

If we were to apply this hypothesis, we should probably find it exactly resolve the phenomena to be accounted for.

Let C and D be two terms to be coupled. To C we subjoin $\tau\epsilon$, to signify that something else is coming; and if D is an equivalent to C, if there be no hesitation anticipated in the mind of the speaker when passing from one to the other, D is then added, with $\tau\epsilon$ affixed to it likewise, to show that it is the something alluded to, exactly in the same manner as the relative is employed both in modern and ancient languages. But if D is an increase or advance upon the former step, $\kappa\alpha\iota$ is introduced and $\tau\epsilon$ omitted as superfluous; since, by the insertion of $\kappa\alpha\iota$, D is sufficiently marked out as the prospective point intended by $\tau\epsilon$. The distinction is marked in Latin by the analogous forms *tum*, and *tum, cum*, and *tum*.

In conjunction with the relative pronouns, with $\epsilon\pi\epsilon\iota$, $\epsilon\varsigma$, $\delta\tilde{\iota}ος$, $\epsilon\tilde{\upsilon}$, and other words of pronominal form, it seems to have precisely the same use, position, and nature, as the indefinite $\tau\iota\varsigma$ in $\tilde{\upsilon}\sigma\tau\iota\varsigma$, the neuter of which it is assumed to be.

Sometimes it appears to connect a second

clause with a former, by throwing the mind back to the former. And sometimes to be subjoined to the second clause instead of appearing in both, when the second is merely an accessory, which we are not anxious to connect with the first ; so that in this latter case $\tau\epsilon$ answers the simple purpose of the connective *and*, while in the former, when we wish to fix the mind not merely on the separate existence of two qualities in the same subject, but their coincidence, and this particularly where they are not often found together, $\tau\epsilon$ answers the purpose of *both* in English.

The full development of all its uses would, however, require a long and elaborate inquiry. The general principle may, perhaps, be summed up in this. That whenever any hesitation is anticipated in passing on from one term of a series to another, $\kappa\alpha\iota$ is employed. But when the terms are merely to be connected, they are simply placed in juxtaposition to each other ; each successive link being anticipated before it is accurately marked out, by means of the indefinite pronoun attached to the preceding link.

When, instead of running either groups of qualities, or similar substances and facts together, we wish for any purpose to separate them one from the other, the particle η is employed. And in its use it is very analogous to the

English *or*, which might, perhaps, be connected with the root of the Greek *ῥος*, a *line* or *boundary*, separating two things. Sometimes then η will be introduced where each member of an enumeration is to be separately dwelt upon, either for the purpose of amplification or clearness. Sometimes it is prefixed to a second case merely to mark it as distinct from one which preceded. Sometimes when a choice is offered it will separate the alternative abandoned from the one selected. And still more frequently where there are, as it were, several candidates for a single object which can fall only upon one, it will mark the perfect incompatibility of the several possible cases. It need only be observed, that in instances of comparison, the sign of the comparative degree is perfectly immaterial; and that, introduced, it in no way is capable of throwing light upon the construction.

It is self evident that before any notions can be connected or disjoined, they must be perceived to be distinct one from the other. And in placing the particles which mark these mental operations before those which are employed in making distinction, a false arrangement has perhaps been adopted. This, however, is of no great importance.

Of distinctive particles there appear to be two kinds, those which are employed in the

office of making distinctions, and those which mark them when made.

It has before been observed that the mode by which we become sensible of a difference in two objects, is by finding some break in the chain of our anticipations. If a series of six ideas has been obtained from one substance, and only five occur in another, we perceive that they are different. And it is quite evident that this alteration may take place in two ways, either by a deficiency in our second series, or by the intrusion of an extraneous link. We may either anticipate a perception and find a blank, or anticipate a blank and find a perception.

This appears to be the primary difference between ν and $\mu\eta$ —and all the complicated uses of these words seem to be explicable by a little attention, if this principle is steadily kept in view.—Hence it is that ν is employed in categorical propositions, to indicate the absence of a quality which had been suggested to exist in the subject, but $\mu\eta$ in imperative forms, in expressions of wishing, forbidding, and deprecating. Hence also $\mu\eta$ is used with adjectives, with imperative moods, and with subordinate clauses—and is generally to be construed by the English *but*, or *without*. And when the two are found together, the distinct meaning of each is usually to be retained, except perhaps in some few cases which have perplexed critics;

and in which the ᾤ supposed to be superfluous is introduced, because the end of the action or subject of consideration is not merely privation, but negation founded on privation. The distinction is difficult and abstruse without examples.—But it may easily be observed by referring to the familiar instances accumulated in grammatical works; and it will assist the search if we examine each instance, and inquire how far the fact, to which the two negations are applied, is considered as an active cause or any thing positively existing. The negation of colour may act still as another colour, but the mere detraction of it can do nothing. And this seems to be the clue to the whole mystery. The origin of the words $\mu\eta$ and ᾤ is of no very great importance. Μῆ is perhaps to be found in the root of the verb from which $\mu\eta\nu$, $\mu\acute{\alpha}\omega$, and in Latin *moveo* are derived. And ᾤ is probably a mere interjection.—Even trifles are sometimes worth attention, and the natural movements of the head in the expression of negation or affirmation, according precisely as they do with the gestures with which we beat time to a rhythmical tune, or express our pain at a false note, were perhaps the first cause of those sounds which respectively indicate assent and dissent.

When distinction has thus been attained by means of negation, the next thing is to mark

it, and to fix the attention of a hearer upon each point separately. This is of course most necessary when the two terms from their similarity are most likely to be confounded together. And hence we generally find the distinctive particles applied to individuals of the same species, when they differ in some point in which it was likely for them to agree.— Sometimes also they are employed when apparently there is but one term; and the attention is to be fixed upon that, without running on to others of the same class.—Now as in forming our notion of number we necessarily perform this process of discriminating between individuals very similar, and of keeping them apart in our minds, analogy would naturally suggest the symbols of number as marks of distinction; and what in English is expressed by the phrases *first* and *second*, the Greek seem to have expressed by one, two, $\mu\acute{\epsilon}\nu$, and $\delta\acute{\epsilon}$. Of these $\mu\acute{\epsilon}\nu$ is evidently the neuter of $\xi\iota\varsigma$; and $\delta\acute{\epsilon}$ the counterpart of *too*, seems to bear the same relation to $\delta\acute{\upsilon}\omicron$, as $\tau\epsilon$ to $\tau\acute{o}$. Some observations previously made on our perception of number will show why the Greeks did not distinguish beyond two members of a class.—The very nature of the words explains the mode in which $\delta\acute{\epsilon}$ becomes at once a connective and a distinctive particle—and all their various uses will readily appear when these significations are affixed to

them. To enumerate them would be not so much to explain the employment of the particles, as to mention all the occasions in which the mind wishes to dwell separately upon two objects.

The particle *ἀν* which recurs so frequently in composition, expresses a still greater difference than *ἐκ*.—And its various senses, of *back*, *again*, *contrary to*, and *opposite to*, are fixed by the same analogy which has combined them under the same words in other languages.

The origin of *ἀλλὰ* is self evident, and requires no illustration. But it may be worth while to observe here, that the connective particle is acknowledged to be a pronoun, and coupling this instance with many others of the same kind, to infer the probability of this process in other cases where the derivation of the word is not so palpable.

Illative particles are the last class to be here mentioned. When the operation of reasoning is stripped of all its mystery, it is nothing but the anticipation of a second fact from a former; this anticipation being caused by previous experience of such a conjunction; and being regulated by the law of association.—An uninterrupted experience will rivet, as it were, the two facts together, so that they will occur in unbroken succession to the mind, and will be expressed consecutively in the same manner.

But an experience which has been interrupted will keep the reason fluctuating, as it were, between the two—and in a certain degree suspend the anticipation. In this case our tendency to infer and to believe a fact is regulated by two simple laws. We are inclined to believe that which is agreeable to our feelings, and that which coincides with our preconceived trains of association. In the former case a fact may be called *probable*, in the latter *likely*—meaning by *probable*, that fact which meets our approbation—and by *likely*, that which is like, and resembles others. The two words are frequently confounded. But it is of the highest importance to keep the two principles distinct. This likelihood and probability appear to be expressed in Greek by the particle *ἄν*—and if etymology could trace it up to any connection with the root of the verb *ἀνδάνω* to *please*, it would present a very curious, but very natural coincidence with our own words *likely* and *agreeable*, which express both meanings at once. The degree of likelihood is marked in Greek by adverbs, as *ἴσως*, and *τάχα*; the equal balance of the mind, when suspended between two opposite experiences, being perhaps denoted by the former, and its rapid tendency to form an inference by the latter. A still farther degree of certainty seems to be contained in *ἄρα*, probably from *ἄρω* *apto*. In analytical rea-

soning where the conclusion is stated or implied first, and the premiss subjoined, the same $\alpha\gamma\alpha$ combined with $\gamma\epsilon$, is used when the inference is conceived to be valid; and $\gamma\epsilon$ alone is annexed to the premiss, where it is a particular fact leading to a general conclusion. As the process of production in nature from an embryo to a mature creation, is precisely analogous to the act of generalization from a single fact, a very fanciful etymology might perhaps attempt to connect the particle $\gamma\epsilon$ with the root of the Greek verb of production. But this is too slight a foundation to rest on.

With respect to synthetical reasoning, both a view of the mental operations of which it consists, and the analogy of other languages will show, that there are no particles primarily formed to express inference. The fact on which the conclusion is built may be, and generally is, repeated in the shape of the pronoun—and this in various cases. In the dative, when the second fact is included in the former; in the genitive, when the former is the efficient and active cause of the second; in the accusative, when it is merely the occasional cause—and the two particles $\tau\upsilon\gamma$ and $\delta\eta$ are sometimes introduced, just as the English pronouns of times, *then* and *now*; the former directing the attention to the premiss, the latter to the conclusion. Whatever shapes these

particles or any other words may assume, we may be assured that there is one primary meaning running severally through all. To trace this out, and reduce them into their simple and primary element, is an exercise for the mind of all others most fitted to develop its faculties, and improve its habits of thinking. It is the principal purpose for which dead languages are studied, that we may use them as a field in which to sharpen and construct the instruments, which are afterwards to be employed in other more practical occupations. And it is with this view, and in the hope of suggesting materials for thinking, and hypotheses for inquiry, rather than from a presumptuous confidence in what has been advanced, that the preceding conjectures have been offered.—And if any student should be induced to undertake for himself the examination of their correctness, the purpose of this little Essay will be sufficiently answered, whether they are confirmed, or refuted.

APPENDIX.

(A). The existence at present of a language addressed to the eye and yet sufficiently abstract to avoid these inconveniences, does not controvert this supposition.—It is difficult, indeed impossible to imagine, that such a series of signs as those employed in the instruction of the deaf and dumb, and in alphabetical writing, should have been framed by men not previously within the reach of oral communication. A system of arbitrary visible marks analogous to our verbal sounds, as significant of things and ideas, must have been subsequent to the use of language—strictly so called.—It could not have been reasoned out by degrees, for the whole race of mankind must have perished from want before any progress had been made.—It could not have been constructed at a moment, for since nature has given us but very little assistance towards its formation in any instinctive impulses, reason only could have been employed; and it might easily be demonstrated that we owe nearly the whole, certainly all the superior, faculties of our intellect entirely to language.—So that the use of words must have preceded that cultivation of the understanding, which was necessary to create an ocular language. We are too apt to undervalue the importance of words as an instrument of thought.—And to consider our voice, with its organs of articulation, rather as a curious appendage to our frame, than as a sixth sense—as the lever, in fact, which raises us above the brutes.—We owe, in reality, not language to reason, but reason to language. At least every kind and degree of reason which is not equally shared with the rest of the animal creation.

(B). This principle which has been generally neglected in ascertaining the significations of words is very important, both

as a clue to dead languages, and as giving scope for the exercise of many valuable intellectual faculties.—A great distinction is of course obvious between this principle and the one which follows it. Analogy would lead us to call the top of a mountain its head, or the reason of man the light by which he walks. But the application of many very dissimilar ideas to the same word, arises not from any perception of similarity or proportion between them, but from their being generally united in the same thing or person. A very common illustration may be found in the Greek word *ξένος*, which expressed both a friend and an enemy, a host and a guest, a stranger, and sometimes what was beautiful and uncommon. Not that any analogy existed between these ideas, but because in a country where no inns existed, and relations were formed between families residing in different countries, which obviated this inconvenience by mutually entertaining their travelling friends, the same person stood frequently in all these various relations.—And as the domestic economy of the Greeks was on ordinary occasions of an inferior description, and the arrival of a foreign friend was the signal for greater display, *ξένος* is also employed to signify a superior kind of thing; as distinguished from those in ordinary use.—So also the same word *χάρις* is employed to express the agreeable qualities which produce affection, the affection itself, the action by which it is demonstrated, the present made, and the feeling of gratitude which it excites. So also in Latin the word *fides* means the confidence felt, the cause of that confidence, or the honour and integrity of the person in whom it is reposed—the promise which produces confidence, the adherence to it, or fidelity, and the protection which is promised. So the word *ἑνδαιμόνεια* is employed by Aristotle, and with great confusion in the result, to denote the feeling in the mind, as well as the circumstances which produce the feeling—and his *μεσότης* is a similar instance—for since one mean equally divides two parts, the term is employed to signify equality in general.

(C). Perhaps in the science of mind, as in many other departments of philosophical inquiry, no source more fertile of error could be mentioned than the creation of a technical vocabulary, before the subject matter was fully comprehended.—

The distinction, frequently made in metaphysical works, between sensations, ideas, perceptions, notions, and other words of a similar kind, having once been assumed to be real, from the existence of a distinct nomenclature, has been generally acted upon by writers, and involved in great obscurity the inquiries with which it has been connected. It might seem that all our states of mind are separately perfectly simple, and incapable of being decomposed—as a single sound, the sensation which we term sweetness, the perception of touch or colour, the feeling of heat or cold. When many perceptions of colours are united with the perception of certain muscular actions necessary to carry the eye along lines, we obtain from their succession what may be called ideas. The word idea being properly limited to our perception of figures and magnitudes.—But these ideas instead of being simple are formed by the composition of many consecutive perceptions, which appear continuous from the same principle by which a stick on fire whirled rapidly round will to the eye describe an uninterrupted circle. Again, some states of mind produced by action on the organs of sense are pleasing, some painful—and considered in this point of view they may be termed sensations.—But perhaps it is better where so little has been accurately defined to use the words indiscriminately. If it were possible to conceive that our perception of figured bodies was one single state of mind, we might call it an idea.—But it is more philosophical, and better calculated to simplify the rudiments of the science to consider it as a compound operation.—And one thing we may be assured of, that the question can never be solved, at least by our own consciousness—since to obtain a notion of time, and consequently of consecutiveness, we must perceive a certain number of ideas intervening between the two extreme points. Those therefore which follow immediately on each other can never be ascertained to be consecutive—and may appear simultaneous, though not so in reality. The prevalence of this opinion may perhaps be accounted for by the rapidity with which the eye instinctively glances over objects to collect perceptions, and the wonderful elasticity and restlessness of that organ, which, though without our consciousness, is perpetually in motion, even when most it appears to be sta-

tionary. And though I imagine that I am simultaneously listening to the sound of a bell and looking on the fire, it is probable that even these perceptions are consecutive. At least we have many instances where the action of one organ will completely preclude the operation of another. And perhaps these instances may differ from the ordinary state of our perceptions, solely in the duration of the influence, arising from its character either of pleasure or pain.

(E). Two or three instances of the metaphysical accuracy of the Greek language may be worth mentioning.

It is but a short time since philosophy allowed that what we term ideas are merely the mind in particular states. And the expression of forming notions and ideas, was used as if they possessed an external existence independent of the mind. The Greek νοῦς, however, signifies the mind, and nothing but the mind, and γινώσκω is *gignere mentem*, to form, not an idea, but a mind; as we say in English, to make up our mind to a thing.

It was not acknowledged till lately, and perhaps even now the fact may be doubted by many, that all our reasoning is carried on by words; that demonstration is conversant with nothing but words, and that without the use of language we should possess no reasoning faculty above the brutes.—This very important truth is, however, shut up in the Greek word λόγος, which is at once both language and reasoning.

Again, the whole of Smith's Theory of Moral Sentiments, deriving our feelings with respect to the moral conduct of others from our sympathy with them, is comprised in the defective significations of the word συγγνώμη, to think with a person, to feel with him, to indulge his errors, and think charitably of his faults.

Again, the use of the verb θαυμάζω, with three cases, is very precise, and philosophically accurate. With the accusative it seems to signify to admire, to gaze upon a person, eyeing him all over, and feeling pleasure at the contemplation. With the dative, it means to court, to flatter, to fawn upon a man, so as to affect him with certain feelings towards ourselves. But with the genitive it means surprise and astonishment. This genitive evidently signifies the part

of a whole, the part not being expressed because not definitely known. And the most superficial view of the mind in its perception of surprise, will show that it is felt only when there is an incongruity in an object; when the conjunction is uncommon. That in fact we never do feel surprise at any one whole thing, but at some part of a thing.

Many other similar instances might be adduced; and it may be laid down as a general principle that metaphysical accuracy is to be found rather in ancient and rude languages, than in others with more pretensions to philosophic correctness.

THE END.



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